# County Council of the Parts of Lindsey, Lincolnshire.

# ANNUAL REPORT

TPON THE

# HEALTH & SANITARY CONDITION OF THE COUNTY,

BY

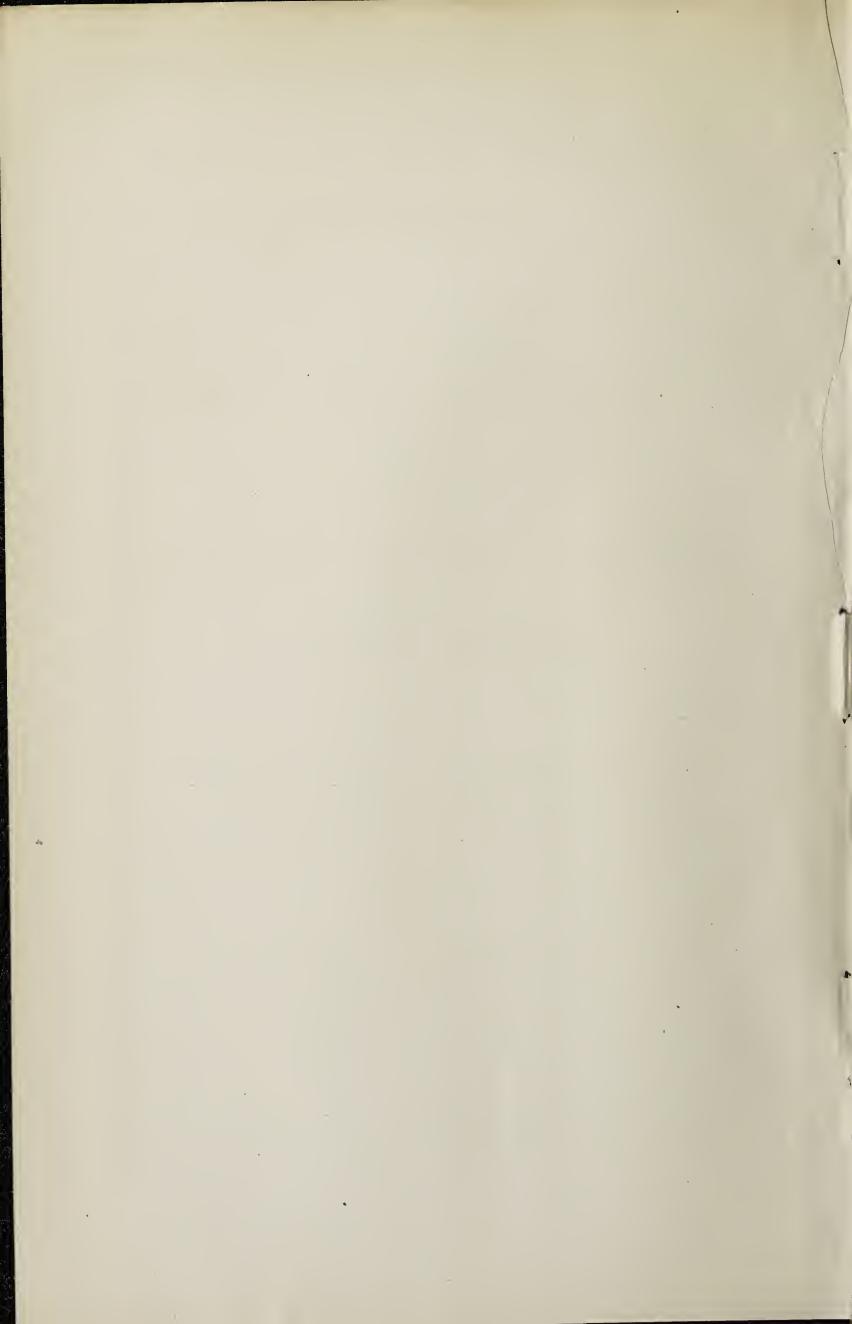
R. ASHLEIGH GLEGG, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.

1915.

Grimsby:

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#### SANITARY DISTRICTS.

	URBAN,
Name of District.	Medical Officer of HealthG. A. BOSSON, M.B., M.R.C.S.
	W. G. Loveridge, L.R.C.P,
	IRCS &c
Brigg	M. R. J. BEHRENDT, L.R.C.P., L.R.C.S. (Temp.)
Broughton	L.R.C.S. (Temp.)
BRUMBY & FRODINGHAM.	J. CLARKE, L.R.C.P., L.R.C.S.I.
	& L.M.
	O. M.BOOTH-MILNER, M.R.C.S., L.R.C.P.
CROWLE	L.R.C.P. W. H. M. Alexander,
	M.B. C.M
	J. A. HACKETT, M.B., Ch.B.
HORNCASTLE	.A.Boulton, M.R.C.S., L.R.C.P.,
LOUTH	D.P.H. .W. J. Best, M.R.C.S., D.P.H.
	J. IREDALE, L.R.C.P., L.R.C.S.
	.D.F.TORRENS,B.A.,M.B.,D.P.H.
CONTRODE	.E. J. Tongue, M.R.C.S., L.R.C.PM. R. J. Behrendt, L.R.C.P.,
<i>'</i>	L.R.C.S.
Skegness	.STANLEY WALLACE, M.R.C.S.,
	L.K.C.P.
WINTERTON	.W. I. T. BAKER, L.R.C.P., L.R.C.S.
WOODHALL SPA	.A.Boulton, M.R.C.S., L.R.C.P.,
	D.P.H.
·	RURAL.
GLANFORD BRIGG	.M. R. J. BEHRENDT, L.R.C.P., L.R.C.S. (Temp.)
CAISTOR	.A. Fraser, M.B., C.M.
Gainsborough	.H. B. WILLOUGHBY SMITH,
	M.B., F.R.C.S., L.R C.P.
GRIMSBY	.G. O. McKane, L.R.C.P.,
HORNCASTIE	L.F.P.S. .Arthur Boulton, M.R.C.S.,
TIONNCASTLE	L.R.C.P., D.P.H.
ISLE OF AXHOLME	ARTHUR F. MESSITER, M.R.C.S. L.R.C.P.
LOUTH	.CHARLES J. MYERS, M.R.C.S.,
Canana	L.R.C.P.
SIBSEY	
	Francis J. Walker, M.D.
WELTON	C. Harrison, M.D., D.P.H.

# To the Chairman and Members of the Public Health and Housing. Committee of the Lindsey County Council.

GENTLEMEN,

I have the honour to present the Seventh Annual Report of the County Medical Officer of Health on the health and sanitary condition of the Administrative County in 1915. The report is later than usual because many of the reports of District Medical Officers of Health have only recently been received, and four, namely those for the Urban Districts: of Brigg, Broughton and Scunthorpe, and the Rural District of Glanford Brigg are not vet to hand. The Medical Officer for these districts is undertaking a very great deal of additional work to release others for military service which has delayed their compilation. I have thought it best to proceed with the county report omitting details of these districts. except such as I have been able to obtain from the Sanitary Inspectors. In order that the report may be as short as possible I have restricted it to a short statement of the vital statistics of the county with an account of the public health work undertaken by the County Council, namely, the health visiting of infants under the Notification of Births Act, the tuberculosis dispensaries, the bacteriological laboratory, the inspection of midwives, and the administration of the Sale of Food and Drugs Act. My report on the results of the medical inspection of school children has already been presented to the Council.

The health of the County during another year under warconditions has been very good. Outbreaks of scarlet fever and diphtheria were rather difficult to control in the absence of hospital provision, particularly because of the deficient sense of responsibility amongst many persons in regard to these diseases. I have given no review this year of the position of the county in respect of housing, water supplies, drainage and sewerage and other matters of general sanitation as this has not materially changed since my report for 1914. The relative efficiency of the administration in each local sanitary area can be gathered from a perusal of the abstracts of the reports of the district Medical Officers of Health included in this report.

Some of the local authorities are highly efficient while others it will be seen are still satisfied with a low standard. The Medical Officers of Health have done good work although a few show the defects of the part-time system. There are great differences in the amount of work accomplished by the Sanitary Inspectors. Particular praise must be given to those at Cleethorpes, Gainsborough and Skegness, and in the rural district of Caistor. Very good work was also done in the rural districts of Grimsby, Horncastle, Louth and Spilsby, and in the Eastern half of Glanford Brigg.

Since August, 1914, great importance has been attached to the work of securing to the troops in training in the County the best sanitary conditions possible. The Local Government Board on 31st August, 1914, instructed medical officers of health to get in touch with the local military medical authorities, and to give to them information as to water supplies, means for refuse disposal and drainage, and arrangements for control of infectious diseases. On 21st October, 1914, the Board issued a further circular letter to medical officers of health on the subject of co-operation between the civil and military sanitary services, accompanied by a copy of a letter on the same subject issued by the War Office to commanding officers. The County Medical Officer of Kcalth has conferred on many occasions with the military sanitary officers and has visited and inspected all camps and most of the billets of which the military authorities have made him The especial attention of the military authorities has been drawn to the importance of providing for the troops

facilities for regular and frequent bathing free of charge. The district medical officers of health of districts where troops are stationed have also kept themselves informed of the sanitary condition of all military quarters known to them. The information as to military quarters has practically always been obtained as the result of enquiry by the civil sanitary officers, and only rarely from the military authorities without enquiry. tion as to notifications of infectious diseases is exchanged between military and civil medical sanitary officers. It is a distinct tribute to the efficiency of the sanitary services that there have been so few cases of infectious disease amongst both the military and civil population. It is satisfactory to know that the Army Council have expressed their appreciation of the assistance rendered to the troops by the local public health authorities under the guidance of the Local Government Board, have regarded it as invaluable, and have asked for a continuance of the "assistance, advice, and co-operation of these authorities, and their expert officers, under the general supervision of the Board's medical inspectors, with a view to maintaining the present favourable record as to disease among troops stationed in camps and billets in the United Kingdom."

> I have the honour to be, Gentlemen,

> > Your obedient Servant,
> > R. ASHLEIGH GLEGG.

VITAL STATISTICS FOR THE YEAR 1915.

	Deaths from Cancer.	* Rate.	86.	11.1	10.1
	Deaths fro Cancer.	No.	16	144	238
	Deaths from Respiratory Diseases.	* Rate.	1.25	1.36	.36 308 1.27
	Death Respi Dise	No.	120	92.	308
	Deaths from other Tuberculous Diseases.	* No. Rate.	.51	92.	98.
	Deaths front other Tubercul Disease		48	36	84
	Phthisis Deaths.	No. Rate.	66.	208.	206 .87
	Phtl Dea	No.	66. +6	211	206
	Zymotic Deaths.	* No. Rate.	1.43	62.	246 1.05
i	Zym Dea		137	601 06.16	246
	Infant Deaths.	No. Rate.	103'37 137	06.16	12.96
	Inf Dea		239	294	533
	Deaths.	No. Rate. No. Rate.	15'02	14.98	15.01
	Dea	z o	1437	2080 14.98	3517
	Births.	* Rate.	2289 23.90	22.33	5488 23.40
		Z o	2289	3199	5488
	Population estimated by Registrar	General.	95,702	138,781	234,483
	Group.		Borough and Urban Districts	Rural Districts	Whole County 234,483

\* Rates calculated per 1,000 of the estimated population. † Rates calculated per 1,000 of the registered births.

# VITAL STATISTICS, L.G.B. TABLE 1.

Nett Death Rate.	20.25 13.51 16.3 14.7 14.28	11.87 12.96 14.87 19.97 10.97 15.22 115.41	12.97 13.67 9.62 15.02	14.0 14.43 16.23 14.57 14.96 15.79 16.68 11.53 11.82 16.38	14.98
Nett Deaths at all Ages belonging to the District.	23 1 23 65 65 65 65 65 65 65 65 65 65 65 65 65	875 881 882 884 885 885 886 887 886 887 888 888 888 888 888 888	160 47 20 14 14 1437	445 180 180 187 187 103 103 176 176	2080 3517
rangents regidents regidents registered in carlier the District.  Describe not registered in registered in the District.	9: 107	1100110011	10 2 125	88138438 881 482 100 4 60 4 60 4 60 4 60 4 60 4 60 4 60 4	208
Deaths of Won- registered in the District.  The District.  The District.  The Market of the Arriver.	30 13 1	क ंप्याप्त ध्रम् ।	9 .:: 1 124	25414 : 5 : IL	53
Rate, Rate.	17.42 12.40 25.6 14.7	10.29 10.86 15.29 27.24 17.30 20.82 13.51	14.35 14.35 12.30 10.31	13.0 13.95 14.66 13.33 13.28 14.56 14.96 11.07 14.17	13.87
Mumber.	37 78 80 80 40 40	24 128 207 255 257 257	1436	414 174 120 139 166 95 95 261 32 284 155	1925
Deaths under 1 year of age. Rate per 1,000 Births Registered.	86.95 95.23 93.0 128.0 78.43	88.78 27.39 119.26 142.85 114.94 75	84.51 32.26 83.3 103.37	107.0 110.68 54.87 100. 68.40 107.91 113.8 89.25 68.04 88.98	91.90
Deaths Num- Near Near Near	4 4 0 rc 0	10 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0	6 1 1 1 239	88 6 17 17 1 18 8 1 1 1 1 1 1 1 1 1 1 1 1 1	294
Nett Births. * Eate. *	19.45 20.93 27.5 25.08 32.29	25.26 20.26 20.28 14.53 17.39 16.48 17.19	13.78 21.41 7.24 23.90	25.8 20.26 20.26 20.26 19.77 19.25 21.31	22.33
Zumber Zett	46 147 86 39 102	619 73 436 174 10 10 10	31 31 12 2289	822 328 327 327 139 408 67 408	3199
Population of control	2,123 6,288 3,119 1,555 3,500	23,496 18,825 18,826 19,261 1,445 11,3 518	10,540 3,622 1,463 1,455 95,702	31,772 13,979 10,426 10,500 6,521 17,438 2,890 20,038	138,781 234,483
Persons per House at census 1911.	5.02 5.02 5.02	4 4 4 8 8 8 8 4 4 5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4.70 3.89 4.47 4.47	######################################	4.55
bətidadırl ta səsuod J161 susuəb	658 1,533 752 322 584	4,917 7055 4,516 1,010 2,626 596 820 820	2,01a 802 802 366 332 22,136	6,862 2,570 2,570 2,570 1,651 2,651 2,661 691	33,553
otntets ni serA bns bnsl) seres (.retsw bnslni	1,138 6,343 462 7,073 4,043	1,185 6,926 6,926 2,406 1,421 3,749 3,168 4,908	1,032 1,922 3,818 1,874 1,874	124,003 120,108 94,706 43,201 114,153 28,070 154,627 21,565 128,211 83,712	912,356
	: : : : :			:::::::::	: :
т.	er  ngham		::::::		
District.	Alford	Ciecthorpes-with- Thrunscoe Crowle	Skegness Winterton Woodhall Spa TOTALS	Glanford Brigg Caistor Gainsborough Grimsby Horncastle Isle of Axholme Louth Sibsey Spilsby Welton	TOTALS TOTALS FOR COUNTY
	URBAN. Alford Barton-on-Brigg Broughton Brumby &	Crowle Gainsborou Horneastle Louth (Bor Mablethory Market Ras Roxby-cum	Skegness Winterton Woodhall S TOTAL	Glanford B Caistor Gainsborou Grimsby Horncastle Isle of Axh Louth Sibsey Spilsby	TOTA

\* Nates calculated per 1,000 of the estimated population.

L.G.B. TABLE III. (part of).

#### Causes of all Deaths in the County at Different Ages.

Causes of Death.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	TOTAL.
Enteric Fever Measles Scarlet Fever Whooping-Cough Diphtheria (including Membranous Croup) Influenza Erysipelas Chicken-Pox Cerebro-spinal Fever Phthisis Tuberculous Meningitis Other Tuberculous Diseases Rheumatic Fever Cancer Meningitis Bronchitis Pneumonia Other Diseases, Respiratory Organs Diarrhœa and Enteritis Appendicitis Alcoholism Cirrhosis of Liver Nephritis Puerperal Fever Other Accidents Congenital Debility Violent Deaths Suicides Heart Diseases Other Defined Diseases Diseases, ill-defined or unknown	14 17 1 8 2 6 7 35 44 51 219 13 4 104 7	1 45 2 15 17 2 6 10 6 6 10 55 4 5 11 7 16 25 25 2	1 13 2 25 4 25 4 11 6 9 2 8 1 5 3 6 11 11 6 16	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 2 4 30 129 3 20 2123 7 46 61 15 54 4 15 58 1 15 32 9 120 228 7	100 3  8 1 4  171 71 8 7 1 1 4 35   14 4 187 745 13	13 75 6 32 48 147 3  206 29 55 5 238 41 279 247 28 71 14 5 19 96 1 18 226 98 14 328 1145 30
	533	257	130	159	947	1491	3517

#### L.G.B. TABLE IV. (part of).

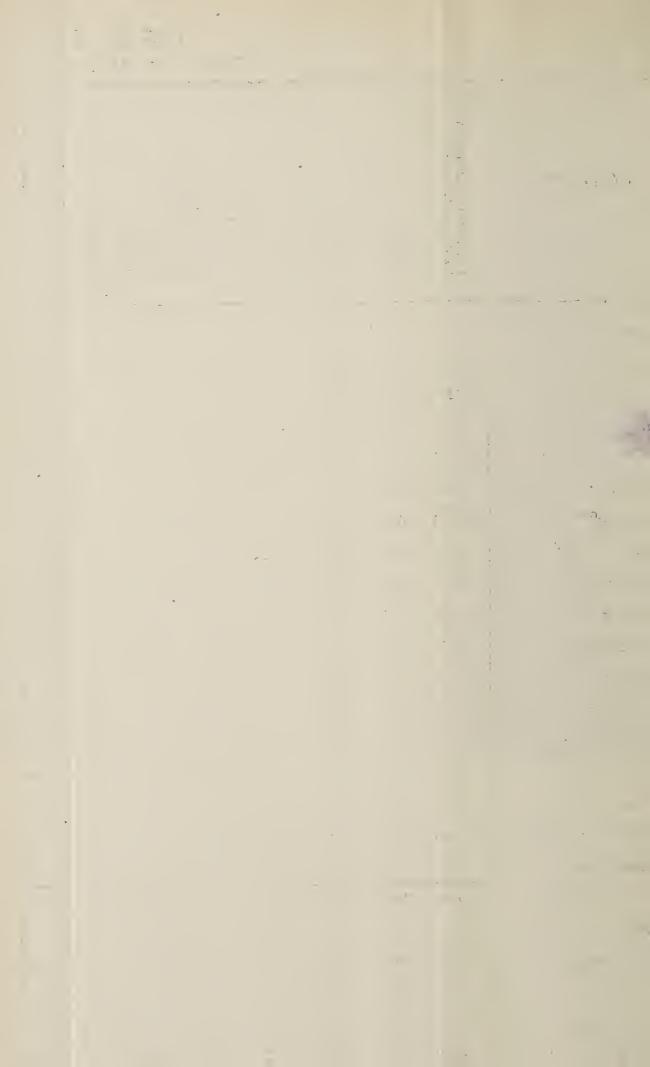
This Table shows the Ages at which the Deaths under One Year occurred and the Causes of Death:—

Cause of Death.	Under 1 Month.	I and under 3 Months.	3 and under 6 Months.	6 and under 9 Months.	9 and under 12 Months.	Total,
Small-pox	· · · ·	•••	•••		•••	•••
Chicken-pox					•••	•••
Measles	1	1		5	7	14
Scarlet Fever		• • •			1	1.
Diphtheria & Croup	•••	• • •	***	• • •	1	1
Wheoping-Cough	2	3	4	6	2	17
f Diarrhœa		9	7	6	3	23
Enteritis	5	7	9	3	4,	28
(Tuberculous-meningitis	• • •	•••	•••	2	•••	2
Abdominal Tuberculosis			3	• • •	1	4
Other Tuberculous Diseases	•••	1		• • •	1	2
(Congenital Malformations	3	4		2		9.
Premature Birth	105	11		• • •	•••	116
Atrophy, Debility, and Marasmus	49	26	16	2	1	94
Atelectasis	17	1	• • •		•••	18
Injury at Birth	2		• • •		• • •	2
Erysipelas					• • •	•••
Syphilis	1	3	2		• • •	6.
Rickets	•••	1	1		• • •	$2^{\cdot}$
Meningitis (not Tuberculous)		1	4		2	7
Convulsions	18	10	9	4	4	45
Gastritis		3	1	2		6.
Laryngitis			1			1
Bronchitis	1	8	10	14	2	35
Pneumonia (all forms)	2	6	11	15	10	44
Suffocation (Over-lying)	1	1	2			4
Other causes	20	7	11	8	6	52
	227	103	91	69	43	533

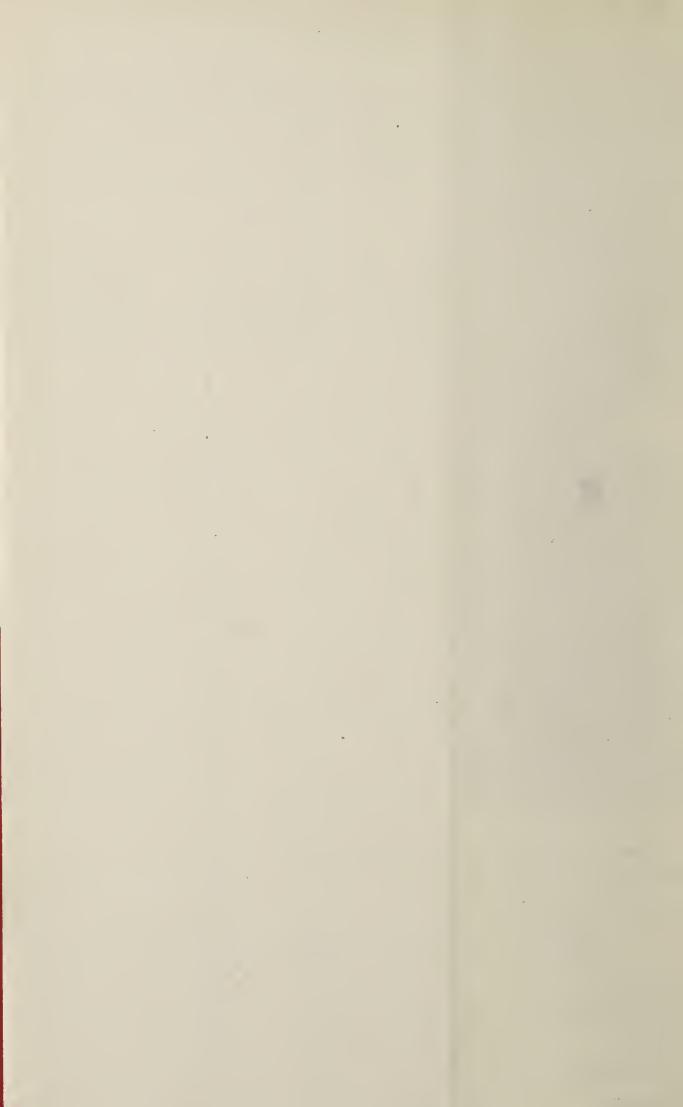
L.G.B. TABLES I. AND III.

Causes of Death in Each District at All Ages.

DISTRICT.    Fig.   Fig							CAU	ISES	OF	D.	EATI	I II	N I	SACE	1 1,	) IST	KICT	AT	A	LL	AG	ES.												
Alford	DISTRICT.	estimated neral.	Births.	Deaths.	<b>F</b> 4	Measles.		Whooping-Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	H	00	Other Tuberculous Diseases.	ic	Cancer. Malignant Disease.	Meningitis.	Brouchitis.	Pueumonia. (All Forms.)	Disea	hoea an	Appendicitis and Typhlitis.	Alcoholism.	of	Nephritis and Bright's Disease.	Feve	Accidents & P	al Debillty and luding Premat	b De		Heart Diseases.	Other Defined Diseases.	seases ill-def unknown.	
Alford	URBAN																																	
Barton-oa-Hamber 6828 147 88	Alfond	2123	46	43					2	1		1	1			4		1	3									4	1		11	12	2	13
Prings								1		1		10	3					7				1	• • •		0 0 0	• • •		6	2		7			
Brunghton 1535 30 23 2			`					1		8							1							***		•••			3	• • •	2			
Bramley and Fredinglann   3360   102   56		1555	39										1	1					1			dyright of the second			1				1					
Cleckborges   Cleaborges   Clebborges   Cleaborges	Brumby and Frodingham	3500	102				1		2	•••				1				1	6	1			1		2	1		4	2				1	50
Gainsbrough	Cleethorpes	23496	619	278	2	12	1	4	7	4		14	3	5	1	21	3	29	22	3	8	manufacture and a state of the	1		1			22	15		21	63		278
Hornenstle 3535 66 86 3 3	Crowle	2855	73	37	• • •								•••	1	1	5	1	2	4	1	2				1				1	2	ŏ	12		37
Louth (Borough)	Gainsborough	18826	436	280	2	5	• • •			10		33	2	5	1	17	2	31	29		14	8 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2	5		3	20	6	2	29	61	1	280
Mathethorpe	Horncastle	3523	56	86		3	•••	•••		4	• • •	2	1	1	• • •	4	1	2	19	2	1	2			1			4	3		9	27	/	86
Market Rasen 2113 40 48 2 1 1 1 2	Louth (Borough)	9261	174	185	1	15	1	•••	4	7	•••	12	•••	2	•••	11	2	16	7		4			4	9		1	7	5	1	15	60	1	185
Roxby-cum-Risby   10540   10540   327   160	Mablethorpe	1445	14	22	• • •		•••		1	1	•••	2	•••	1	• • •	3	•••		1					2	• • •				1		2	8		22
Seunthorpe 10540 327 160 6 1 6 1 9 2 4 6 5 7 712 3 11 1 4 18 3 8 52 1 160 Skogness 3622 71 47 2 4 1 5 3	Market Rasen	2113	40	48	• • •		• • •	2	1	1	• • •	2	• • •			2	• • [	3	2		••• [	• • •			4			2			11	18		48
Skegness 3622 71 47 2 4 1 5 3 2 1 6 2 6 15 47 Winterton 1463 31 20 1 1 1 3 1 2 1 1 1 1 3 4 20 Woodhall Spa 1455 12 14 1 1 1 1	Roxby-cum-Risby	518	16	8	 	1	•••				. • •	1	1	•••			•••	2	a a a a a a a a a a a a a a a a a a a			•••		• • •				2	1		1			8
Winterton 1463 31 20 1 1 1 3 1 2 1	Scunthorpe	10540	327	160	• • •	6	•••	1	6	1	•••	9	2	4		6	5	7	12	3	11	• • •		1	4			18	3	(	8	52	1	160
Woodhall Spa	Skegness	3622	71	47		•••	•••			2		4	1	•••	•••	5		3	• • •				3 * *	B 0 0 1	2		1	6		2	6	15		47
Total 95702 2289 1437 8 46 3 9 24 41 1 94 20 28 3 94 17 108 122 12 47 6 2 12 40 1 9 102 43 7 138 394 6 1437  RURAL.  Glanford Brigg 31772 822 445 3 7 6 1 19 22 4 10 28 9 34 32 2 8 1 2 1 8 1 40 12 3 18 171 3 445  Caistor 12473 262 180 1 1 1 6 2 4 7 1 11 1 22 9 1 3 4 7 4 31 61 3 180  Gainsborough 13979 328 227 1 1 5 14 1 16 1 3 26 2 22 4 1 2 2 8 2 13 7 16 79 1 227  Grimsby 10426 270 152 7 3 5 8 3 1 11 3 13 9 4 1 1 2 12 6 12 6 18 44 1 152  Horncastle 12500 307 187 3 1 1 6 10 1 10 12 26 2 1 1 6 9 2 2 3 7 187  Isle of Axholme 6521 139 103 2 3 1 2 2 3 2 11 6 1	Winterton	1463	31	20	1	1	•••	•••	1				3	1		2			1		•••	• • •	0 0 0		.1			1	1		3	4		20
RURAL.  Glanford Brigg 31772 822 445 3 7 6 1 19 22 4 10 28 9 34 32 2 8 1 2 1 8 40 12 3 18 171 3 445  Caistor 12473 262 180 1 1 1 6 2 4 7 1 11 1 22 9 1 3 4 7 4 31 61 3 180  Gainsborough 13979 328 227 1 1 5 14 1 16 1 3 26 2 22 4 1 2 2 8 2 13 7 16 79 1 227  Grimsby 10426 270 152 7 3 5 8 3 1 11 3 13 9 4 1 1 2 12 6 12 6 14 1 152  Horncastle 12500 307 187 3 1 1 6 10 1 10 12 26 2 1 1 6 9 2 23 78 187  Isle of Axholme 6521 139 103 2 3 1 2 2 3 2 11 6 1 1 1 1 1 1 3 3 2 15 42 2 103  Louth 17438 360 291 1 7 3 3 21 18 2 2 2 21 3 18 18 1 3 1 1 1 1 1 3 2 9 1 3 1 1 6 1	Woodhall Spa		.	14		1				1	1				•••				1			•••	• • •	• • •	2		1	1	• • •		3	2		14
Gainsborough 12473 262 180 1 1 1 6 2 4 7 1 11 1 22 9 1 3 4 7 1 12 1 8 1 40 12 3 18 171 3 445  Gainsborough 13979 328 227 1 1 5 14 1 16 1 3 26 2 22 4 1 2 2 8 2 13 7 16 79 1 227  Grimsby 10426 270 152 7 3 5 8 3 1 11 3 13 9 4 1 1 2 2 8 2 13 7 16 79 1 227  Horncastle 12509 307 187 3 1 1 6 10 1 10 12 26 2 1 1 6 9 2 23 73 187  Isle of Axholme 6521 139 103 2 3 1 2 2 3 2 11 6 1 1 1 1 3 3 2 15 42 2 103  Louth 17438 360 291 1 7 3 3 21 18 2 2 21 3 18 18 1 3 1 12 3 19 6 1 32 86 10 291  Sibsey 2890 67 42 1 1 3 3 26 15 1 6 17 3 16 9 1 3 1 1 1 1 3 7 1 23 115 1 277  Welton 2038 408 277 4 3 26 15 1 6 17 3 16 9 1 3 1 2 9 1 13 7 1 23 115 1 277  Welton 2044 236 176 3 1 5 5 12 17 3 16 9 1 3 1 2 9 1 13 7 1 23 115 1 277  Welton 2044 236 176 3 1 5 5 12 15 1 20 11 3 3 6 6 1 7 5 10 65 3 176  Total 138781 3199 2080 5 29 3 23 24 106 2 112 9 27 2 144 24 171 125 16 24 8 3 7 56 9 124 55 7 190 751 24 2080		95702	2289	1437	8	46	3	9	24	41	1	94	20	28	3	94	17	108	122	12	47	6	2	12	40	1	9	102	43	7	138	394	6	1437
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Welton        10744       236       176        3        1       5       5        12         15       1       20       11       3       3         1       7       5        10       65       3       176         Total        138781       3199       2080       5       29       3       23       24       106       2       112       9       27       2       144       24       171       125       16       24       8       3       7       56        9       124       55       7       190       751       24       2080								4						6	•••	17	2	16	(1	1	2	1	•••	1		•••	•	1	3	•••				42
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	L.G.B. TABL.	1. 1. V.	TNF'AN'I'ILE	MORTALITY.	County infantife Death Rate 30 70.
BIRTHS.	DEATHS. DEATH	IS AT AGES		CAUSES OF I	NFANT DEATHS.
Legitimate.  Illegitimate.  Total.	Certified. Uncertified. Total. Under 1 week. 2-3 weeks. 3-4 weeks.	Total under 1 month.  1-3 months.  3-6 months.  6-9 months.	9-12 months.  Small-pox.  Chicken Pox.  Measles.  Scarlet Fever.  Diphtheria & Croup.  Whooping.	Diarrhea.  Enteritis.  Phthisis  Tuberculous Meningitis.  Abdominal Tuberculosis.  Other Tuberculous Diseases.  Congenital Malformations.  Premature Birth.  Atrophy, Debility, and Marasmius.	Atelectasis.  Injury at Birth.  Syphilis.  Syphilis.  Convulsions.  Convulsions.  Gastritis.  Bronchitis.  Bronchitis.  Suffocation.  Other Causes.  Total.  Illegitimate  Deaths.
URBAN-					
31   15   40	4 4 3 1	4		3 1	
on-Humber 137 10 14	14 14 2 2	4 5 4	1 1	1 2 5 1	1 2 1 14 1
Brigg 79 7 80	8 8 8 2 1	3 3 1	1	3 2	1 2 8 2
Brought 39 39	5 5 1	1     2		1 1	1
Brumby and Frodingham 92 10 102	8 8 1 1		1		1 1 8
Cleethorpes-with-Thrunscoe . 595 24 619	56 1 57 14 1 5 2	22 10 12 8	5       3       2	5 1 12 9	5 3 1 3 2 5 3 1 2 57 5
Crowle 67 6 78		1 1			
		16 11 8 12	5 1	8 4 1 1 12 6	1       2       2   11     3   52   2
	8 8 4	4 2 1	1		1 1 2 8
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Roxby-cum-Risby 15 1 10	1 1	1			
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Sibsey 67 67	4 2 6 1	1 2 2	1 1	1 1	
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Welton 215 21 236	18 3 21 6	6 6 3 5	1 1	1 2 3 2	
Total 3030 169 3199	284 10 294 79 .26 17 10	132 57 49 39	17 5 1 13	9 9 1 1 6 58 58 9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
					8 2 6 2 7 45 6 1 35 41 4 52 533 50



# VITAL STATISTICS OF THE ADMINISTRATIVE COUNTY.

#### POPULATION.

The vital statistics are always based upon an estimate of the population as at Midsummer of the year under consideration. The basis to be taken for 1915 has been calculated by the Registrar-General in order that the rates throughout the kingdom may be comparable. The method adopted of arriving at the estimates is set out by the Registrar-General as follows:—

"The war has made it impossible to adhere to the methods of estimation of local and national populations hitherto in use. Men of military age have been largely drafted to military training centres or sent abroad with the army, and the remainder of the male adult population, as well as, to a lesser extent, the female population, has migrated on an unprecedented scale into areas other than those in which it was enumerated at the last census.

"Under these circumstances estimates of local populations based on the census returns were clearly inadmissible, and it became necessary to search for a substitute. Fortunately this was ready to hand in the shape of the National Register, which referred to a date only six weeks removed from that for which estimates were required, viz., the middle of the year 1915. No doubt this does not form a perfect record as it is known that a number of persons escaped registration. From investigations, however, which have been made in another connexion it appears that the defects in the register taken as a whole are not on such a scale as to affect seriously the estimates of population based upon it. By the method described below it was possible to derive from these returns estimates of the civil population only of each administrative area on August 15th. No attempt has been made to increase these by allowance for members of the fighting forces because, apart altogether from the difficulty of ascertaining the average military population of each district during the year, experience has shown that under present circumstances only civilian deaths can be tabulated for local areas. If military deaths were to be included they would have either to be debited to the area in which they occurred, a course which would render the death-rates of districts containing large military hospitals meaningless, or to the area of residence. An attempt made to pursue the latter course has had to be abandoned owing to military authorities having been unable to furnish to the registrars the necessary information. It has been found necessary therefore to limit the tabulation of deaths by local areas to deaths of civilians, and under these circumstances the civilian population is obviously the proper one to use for the calculation of death-rates.

"An additional advantage in the use of National Register populations is that these consist of habitual residents in each locality and not merely of the persons who happened tobe present therein on a certain date. The deaths tabulated from the year 1911 onwards are also those of habitual residents only, and therefore the use hitherto of populations which in certain cases included very large institutional elements chiefly composed of non-residents introduced in these cases serious errors into the rates calculated from them, as pointed out in the Registrar-General's Annual Reports. (See page 132, Report for 1913.) This source of error now of course disappears for the time being, and in such districts an unavoidable break in the continuity of the previously misleading rates will result. In any case, however, the maintenance of continuity is under presentcircumstances obviously impossible, and it is felt that the present estimates will furnish death-rates calculated to indicate as nearly as may be the health conditions of the civil population.

"The method by which the estimates of civil population have been derived from the National Register returns may now be described.

"The ratio of the total population less the males aged 15-65 years to the number of females aged 15 to 65 years at the date of the census was calculated for each administrative area, and this ratio was applied to the number of females on the National Register; the resulting product plus the number of males aged 15 to 65 years on the National Register was taken to be the number of the civil population of the district. A small adjustment was necessary in order to make the sum of the estimates for the several districts equal to the estimate for the country as a whole made on the same basis. Further, the popu-

lation in institutions was not registered and this (taken to be the same in the aggregate for England and Wales as at census date) togéther with a number of persons of no fixed abode were distributed evenly over the whole country. These two adjustments raised the original estimates by about one per cent.

"The question of the population to be used for the calculation of birth-rates has also required consideration. The births registered are not only those of the children of civilians, and the estimates of civil population therefore form an unsuitable basis for the calculation of birth-rates. It is impossible to frame any estimate that would give reliable birth-rates, and it is suggested, therefore, that the birth-rates for 1915 be based upon the existing estimates of total population for 1914. These will sometimes be seriously in error owing to extensive migration having occurred. Although in such cases the Registrar-General does not possess the local information necessary for applying any correction it is not suggested that this fact need preclude medical officers of health from making use of their opportunities in this direction.

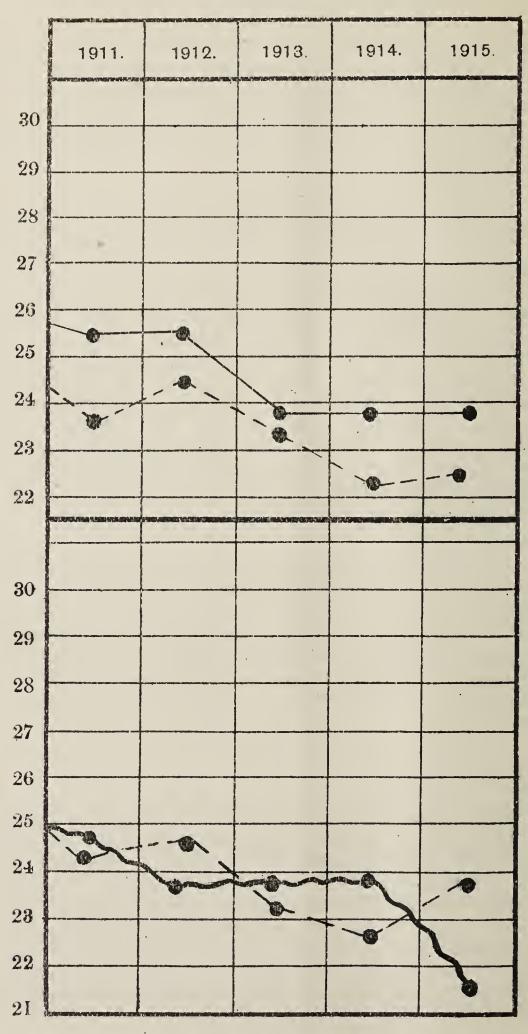
"Difficulties, which will probably prove insoluble, remain as to estimation of populations in sex and age groups and the standardising factors dependent upon them. Moreover the present method of estimation will obviously not apply to 1916 or subsequent years unless the National Register is effectively kept up to date or further enumeration made. Nothing can at present be decided as to these matters."

#### BIRTH RATE.

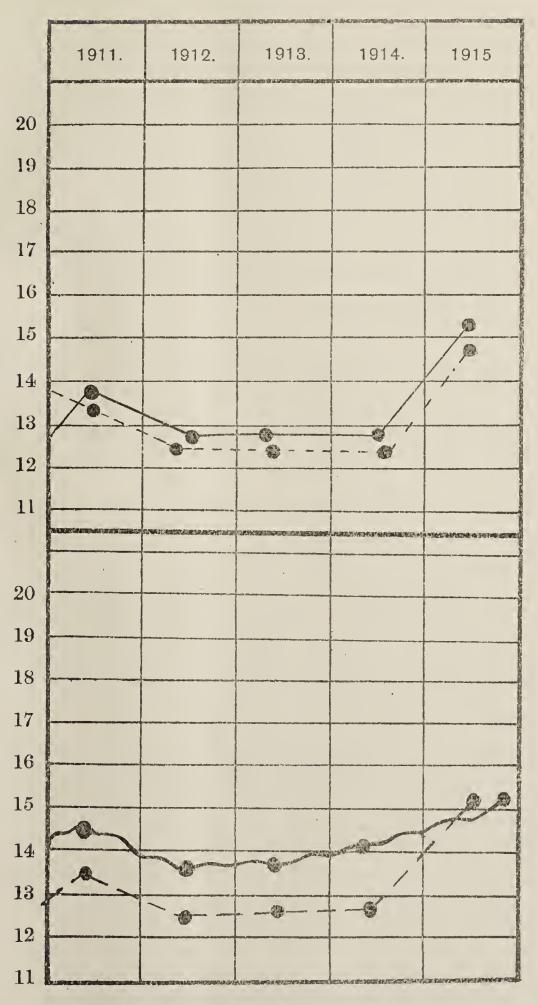
There were 5,474 births actually registered in the county. The Registrar-General transferred 18 of these to other districts and included 32 registered elsewhere. The nett number of births was, therefore, 5,488 or 207 fewer than last year. The birth rate per 1,000 of the estimated population was 23.40. As in previous years very low birth rates are recorded in the rural districts of Claistor, Isle of Axholme, Louth and Spilsby, and high rates in the ironstone area notably in the urban districts of Brumby and Frodingham, Roxby-cum-Risby and Scunthorpe.

#### BIRTH RATES FOR 5 YEARS.

Urban Districts \_\_\_\_\_ Rural Districts \_\_\_\_\_



#### DEATH RATES FOR 5 YEARS.



County of Lindsey - - - - - England and Wales

#### DEATH RATE.

3,361 deaths were registered in the county in 1915. 177 of these were transferred to other districts and 333 were added of residents who died elsewhere. The nett number of deaths belonging to the county, therefore numbered 3,517, or 384 more than last year. The death-rate for 1915 was 15.01 per 1,000. The lowest death-rates were in the urban districts of Woodhall Spa (9.62), Cleethorpes (11.87). Crowle (12.96) and Skegness (12.97). An examination of the causes of deaths shows that the increase is chiefly to be attributed to deaths at age 65 and upwards from influenza, pneumonia, bronchitis and senility.

#### INFANT MORTALITY.

533 infants died in the county under one year of age in 1915, namely, 239 in the urban districts and 294 in the rural districts. In 1914 there were 506 infant deaths. The slight increase in 1915 is chiefly to be attributed to deaths in the rural districts from debility from birth and pneumonia. There were actually 24 fewer cases of diarrhœa and enteritis.

The rate of infant mortality per 1,000 births was 96.71 in the county as a whole. In the urban districts it was 103.37 and in the rural districts 91.90.

The death-rate was heaviest amongst the illegitimate infants, there being 50 deaths out of 304 births or a rate of 164 per 1,000. In the urban districts the illegitimate infant death-rate was as high as 192 per 1,000 or practically twice the legitimate infant death-rate of 97 per 1,000.

#### Notification of Births Acts, 1907 & 1915.

Arrangements for health visiting by district nurses under the Notification of Births Act, 1907, were in force during the year in the urban districts of Brumby and Frodingham, Crowle and Scunthorpe. In these districts the rate of infant mortality for 1915 was 78.4, 27.4 and 149.8 respectively.

A crèche has been established at Crowle where the infants of women workers are looked after. At Scunthorpe a "Mother's Welcome" has been started.

The Notification of Births Act 1915 making the Act of 1907 compulsory throughout England and Wales was passed in July and came into force on 1st September. The

County Council undertook the administration of the Act for all the districts except Brumby and Frodingham, Crowle and Scunthorpe, enlarging the scope of their existing scheme of health visiting of school children and tuberculosis cases to include infant health visiting. Under the scheme the health visitors are provided by the Lincolnshire Nursing Association and include 17 whole-time nurses and 33 part-time district nurses. A joint Sub-Committee composed of members of the County Council and of the Association meet monthly to administer it.

The work of the nurses is directed by the County Medical Officer of Health and supervised by the County Nursing Superintendent. The instructions to the nurses as infant health visitors and their duties are set out I. and II. of Report. They Appendices this instructed to work in close co-operation with the District Medical Officers of Health to whom as well as to the County Medical Officer of Health they report the results of their visits of inspection on forms similar to those shown in Appendices III. and IV. The District Medical Officer of Health takes what action is possible when unsatisfactory conditions are reported.

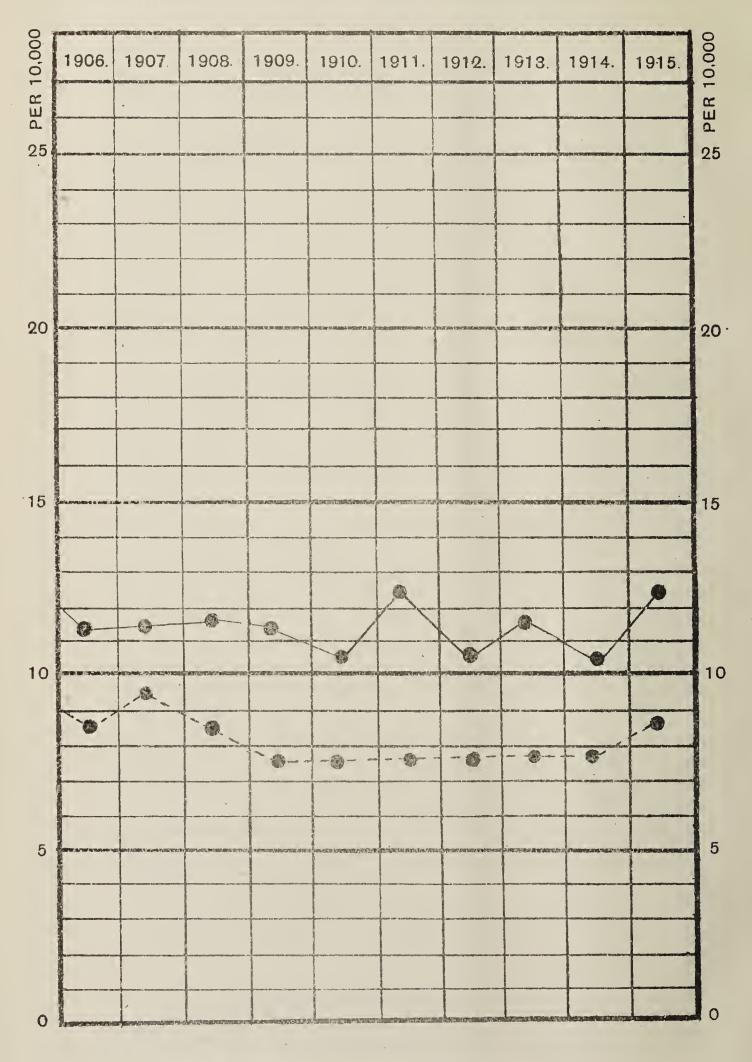
Under the Notification of Births Act every birth is notifiable within 36 hours to the District Medical Officer of Health by the father of the child and by the medical practitioner or midwife in attendance at the birth.

During the last four months of 1915 1,045 births were notified. The majority of these births have been visited by the health visitors since January, 1916, when the scheme was put in operation. The details of the work done do not fall to be discussed in this report, but I may say that the work has been inaugurated in a very satisfactory manner and that great praise is due to the health visitors for their earnest efforts to combat infant mortality. Their advice and instruction to mothers have been appreciated and they have done much to improve the general hygiene of the homes. In two districts, Cleethorpes and Horncastle, under the County scheme Mothers' Welcomes or Baby Clinics have been established and several more are to be formed before the close of 1916.

#### DEATH RATES FROM SPECIFIED DISEASES.

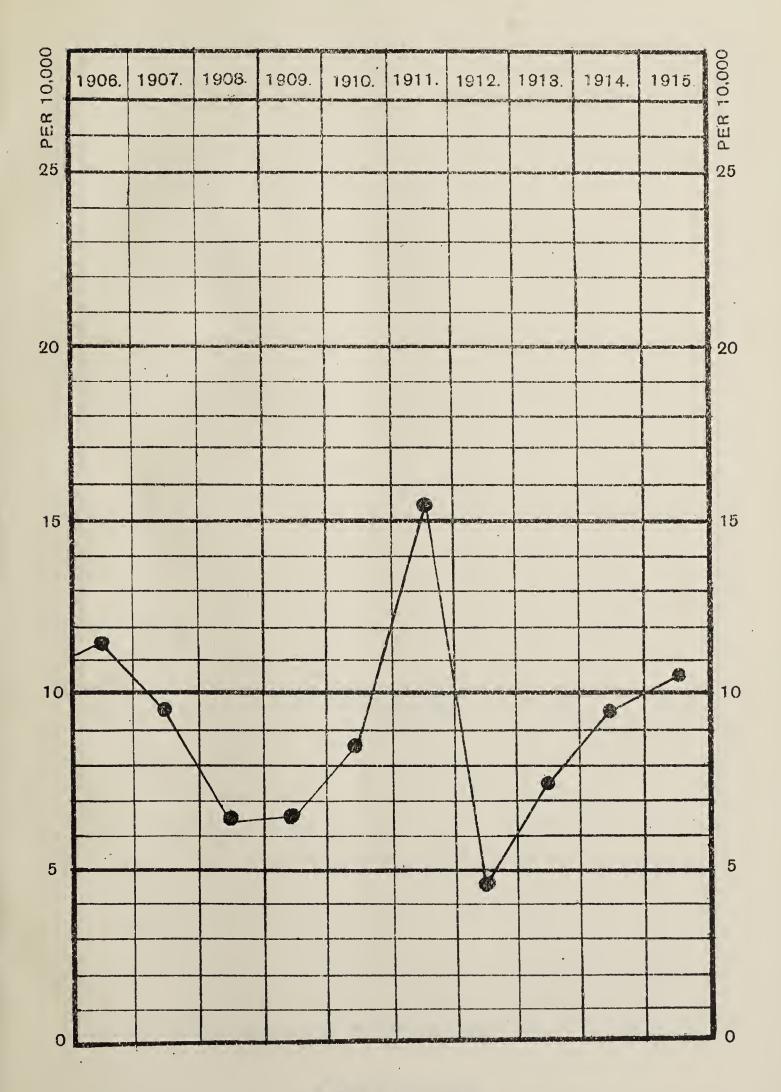
The death rates from phthisis, other tuberculous diseases, cancer, respiratory diseases and pneumonia and from the

#### 



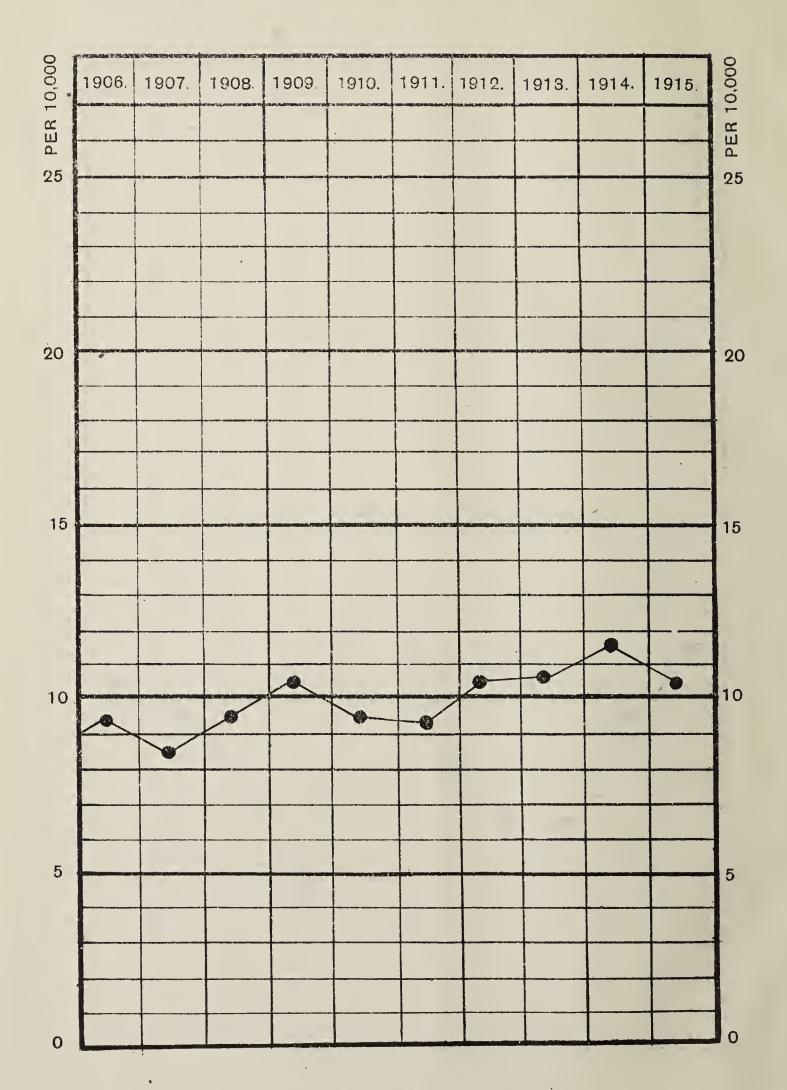
Phthisis Rate ... 8.88
Total Tuberculous Diseases ... 12.36

Chart showing Death Rates per 10,000 from Zymotic Diseases in the County during 10 years, 1906-15.



Death Rate 10.49

# Chart showing Death Rate per 10,000 from Cancer in the County during 10 years, 1906-15.



Death Rate 10.15

seven chief zymotic diseases are given in the first table in this report. There were more deaths in 1915 than in the previous year from the zymotic diseases, phthisis and other tuberculous diseases and considerably more from respiratory diseases but it is worthy of note that there were 55 fewer deaths from cancer. The usual charts are given.

#### COUNTY SANITARY ADMINISTRA-TION.

#### COUNTY LABORATORY.

The County Laboratory is being increasingly used by the medical practitioners in the county, especially for assistance in the diagnosis of diphtheria and pulmonary tuberculosis.

Altogether 769 specimens were submi	tted	as follows	:
Swabs for Diagnosis of Diphtheria	356	Positive	90
		Negative	266
Clearance Swabs after Diphtheria	156		13
		Negative	
Sputum query Pulmonary Tuberculosis	221	Positive	
		Negative	
Blood for Widal Reaction in Typhoid	12	Positive	
		Negative	11
Other specimens	24		

The cost of these specimens if sent to an outside laboratory and charged at the low fee of half-a-crown each would have been £96. The actual cost of the laboratory in 1915 was £59 9s. 9d.

## SPECIAL REPORTS BY THE COUNTY MEDICAL OFFICER.

The following special reports were made by the County, Medical Officer during 1915.

1. On the character of the existing isolation hospital accommodation in the county with a suggested scheme for the provision of isolation hospitals including hospital beds for tuberculosis by the County Council. This report was included in last year's annual report.

- 2. On a scheme for health visiting to be undertaken on behalf of the County Council by the Lincolnshire Nursing Association under the Notification of Births Act 1915.
- 3. On the sanitary administration of the Alford Urban. District.

Attention was particularly drawn to the following matters:

- (a) The necessity of separate books being kept by the Inspector of Nuisances for details of work done in respect of each of the premises over which the Council exercise control.
- (b) The absence of bye-laws to regulate scavenging and offensive trades.
- (c) The desirability of house drains being tested on visits under the Housing Regulations.
- (d) The need for weekly scavenging and the abolition of privies, privy ashpits and ashpits, and the substitution of sanitary bins for ashpits.
- (e) The need for a better water supply to the majority of the houses than is provided by the surface wells.
  - (f) The inadequate inspection of housing.
- (g) The nuisance arising from the business of a fat boiler and fellmonger.

#### SPECIAL REPORTS by District Medical Officers of Health...

#### The following Special Reports were received and presented to the Public Health and Housing Committee:—

Name of District and Medical Officer of Health.	Subject of Special Report.
Louth R. D. C. J. Myers, M.D.	On two Insanitary Houses at Aby.
Spilsby R. D. F. J. Walker, M.D.	<ol> <li>On Housing in the parishes of New Leake, Eastville and Midville.</li> <li>On Co-operation with the Military Authorities to pro- vide satisfactory sanitation for troops quartered in the district.</li> </ol>
SCUNTHORPE U.D. M. R. J. Behrendt, L.R.C.P. & S.	On the sanitary condition of a building in Station Road, proposed to be used as a lodging house.

## NOTIFIABLE INFECTIOUS DISEASES.

1,297 cases of infectious disease including tuberculosis were notified to the Sanitary Authorities in 1915, 611 in the Urban Districts and 686 in the Rural Districts.

There were fewer cases of enteric fever, puerperal fever and ophthalmia neonatorum than in 1914 but more of diphtheria, scarlet fever and cerebro-spinal meningitis, the increase being entirely in the rural districts except in the case of diphtheria.

The number of cases reported from each district is given in Table II.

#### Diphtheria.

This disease was chiefly prevalent in Brumby and Frodingham, Scunthorpe and Crosby in the Ironstone district and in Cleethorpes. In the last-named town diphtheria has been for some years more or less endemic in the flat parts of the district where the old system of drainage and sewerage is most inefficient. 41 out of the 48 cases occurred there chiefly during the cold months of the year when the children had to be much indoors.

In the ironstone district the disease was found to be spread chiefly by school attendance. A number of the first cases occurred amongst children attending the Brumby and Frodingham C.E. School. An inspection of the school premises revealed many insanitary conditions likely to foster the disease. Swabs were taken from 59 of the children, and 14 of these showed the presence of diptheria. The school was closed for four weeks. Representations were made both to the Managers of the school and to the District Council as to the need for structural alterations. The spread of the disease would undoubtedly have been checked much earlier if there had been a hospital to which the first cases could have been removed.

The special measures taken to combat the disease are:—

(1) The free examination of swabs from suspected cases at the county laboratory and the examination of swabs to prove freedom from infection before cases in school children are allowed to return to school. Most of the local authorities pay a fee to the medical attendants for these freedom.

26 L.G.B. TABLE II.

This Table indicates the Nature and Distribution of the Cases notified:—

0	CASES NOTIFIED:															
	Sanitary Districts.	Total number notified.	Small-pox.	Cholera.	Diphtheria and Membraneous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	10 1	Puerperal Fever.	Pulmonary Tuberculosis.	Other Tuberculous Diseases.	Poliomyelitis.	Cerebro-spinal Meningitis.	Ophthalmia Neonatorum.	Isolation Hospital.
	RBAN. Alford Barton-on-Humber				3	3 9	4 3				6 21					No. No.
	Brigg Broughton				2	4		2			2 I	3				Yes.
	Brumby & Frodingham				24,	I	29				I	I			{	Yes. For Small- pox only. Yes.
	Cleethorpes	134			48	11	32	3			31	5			4 }	Grimsby Borough Fever
	Crowle Gainsborough Horncastle	14			I	I 20 2	7 76 9 23	I 2			1 49	7	2	1	3	No. Yes. Yes.
	Louth Mablethorpe Market Rasen Roxby-cum-Risby	. 6			4 I I	3	23 2 I	3			16 2 2 1	6 1 2			I	Yes. No. Yes. No.
	Scunthorpe Skegness Winterton Woodhall Spa	67		+	25 3 4	7 3 4	22 3	2			I 0	3	I			No. Yes. No. No.
		611			116	70	212	13		-	145	43	3	I	8	
R	URAL.		-													
	Caistor	. 100			4 12 13	14 6 6		10		3	23 6 15	-	I	3		Yes. Yes. Yes.
	Grimsby	. *29		-	9	I	6	I			8	2			1	In Grimsby Borough Fever Hospital, & the R.D.C Isolation Hospital at
	Horncastle Isle of Axholme Sibsey Spilsby	37			15	2 2 7 2 13	27 42 16				34 2 31			l	I	Immingham No. No. No. Yes. Yes.
	Welton	4 -			24	2		I			3,				2	Lincoln City Fever Hospital.
		*686	5		100	55	349	15		3	125	28	I	5	4	
_	Total for County			,,1	216 es O1				Rom		   270   Beri.		4	6	12	1
-		"IT	ICII	JUE	SU	ie c	ase	OI I	Det.		eri.				,	

swabs. (2) The searching out and swabbing of contacts in school (3) The gratuitous supply of antitoxin to poor persons by most of the authorities.

It would be a valuable addition to our measures of prevention if the local authorities would provide for swabs being taken to prove freedom from infection in all cases. The frequency with which diphtheria germs are found in the swabs sent from school children at the end of their illness shows how important this is.

#### Cerebro-Spinal Meningitis.

Six cases of this disease occurred during the year. In none was any connection with previous cases established. The County Medical Officer is ready to assist medical practitioners in the county in the diagnosis of this disease by taking and examining cerebro-spinal fluid for the meningococcus. The meningococcus is a very delicate organism, and swabs from the nasopharynx in contacts must be smeared on culture medium immediately they are taken if the organism is to be grown. It is advisable that district Medical Officers of Health should ask for contacts to be swabbed in this way in every case.

#### Scarlet Fever.

There were 561 cases of scarlet fever. In and around Gainsborough there were 150 cases and in the rural district of Horncastle there were 96 cases. The type of disease is very mild and many cases escape detection. Several medical officers of health draw attention to the fact that this disease as well as other infectious diseases such as measles and whooping cough would not become epidemic if the individual sense of responsibility were only better developed than it is. The present lack of this sense is deplorable in its consequences.

#### Tuberculosis.

The campaign against tuberculosis was just being inaugurated when war broke out. Under war conditions it was resolved to carry on the dispensary scheme as far as possible with the depleted staff and so keep the organisation in being pending the cessation of hostilities when it may be hoped more effective control of the disease will be established. The dispensary scheme provides in each of ten market towns in the county a centre for the diagnosis of the disease and for the treatment of cases referred to it by the Insurance Committee and for others not otherwise provided for. Cases are kept under the continuous supervision of the medical and nursing staff to encourage them to continue to carry out treatment on the proper lines and to ensure as far as possible that they do not spread the disease to others.

The medical staff visit all notified cases and report to the district medical officers of health any insanitary conditions found. They offer to examine all children living in the same house and other contacts of the cases.

During 1915 838 patients attended the dispensaries. insured persons 265 were cases of 23tuberculosis and tuberculosis bones, skin, glands or joints, two were found have tuberculosis and 14 were still under observation at the end of the year. Of the 534 women and children and other non-insured persons 343 had pulmonary tuberculosis, 75 had tuberculosis other than pulmonary, 10 were recorded as pretubercular, but a number of children included under pulmonary should probably better have been classed as pretubercular; 26 were found not to have tuberculosis and at the end of the year 80 were still under observation for diagnosis.

Of the insured 45 pulmonary cases and 3 non-pulmonary died during the year and amongst the non-insured 18 pulmonary and 6 non-pulmonary died.

The medical staff made 820 visits to homes of patients attending the dispensaries and 145 visits of inspection to notified cases. The nurses made a total of 6,403 visits to patients' homes. 35 insanitary homes were reported to the district medical officers of health.

An important part of the work is the examination of contacts of patients. 336 were examined and 39 being found to be infected were put on the supervision list.

The open-air shelters provided by the County Council are found to be of the greatest value in treatment and also as a means in many cases of removing from overcrowded houses patients who would otherwise be much more liable to convey infection to others. They are greatly appreciated

by the patients. A few cases especially women use them only by day being too nervous to use them at night. Altogether 74 shelters were in use at the end of 1915, 55 by insured persons and 19 by non-insured.

In the following table are given the towns where dispensaries are held with the days and hours of attendance:—

Town.	Day.	Hours of Atten.
Barton-on-Humber	Monday	11-0 a.m.
Brigg	Thursday	10-30 a.m.
Cleethorpes	Wednesday	10-30 a.m.
Gainsborough	Tuesday & Saturday	10-30 a.m.
Horncastle	Thursday	10-30 a.m.
Lincoln	Friday	11-0 a.m.
Louth	Wednesday	10-30 a.m.
Market Rasen	Tuesday	10 <b>-3</b> 0 a.m.
Scunthorpe	Tuesday	5-0 p.m.
,,	Friday	10 <b>-3</b> 0 a.m.
Spilsby	Monday	10-30 a.m.

The full medical staff consists of the chief Tuberculosis Officer and four assistant Tuberculosis Officers who devote four days a week each to the dispensaries and two days to school medical inspection.

Since April, 1915, by which time three of the assistants had been granted leave of absence for military service, the work has been carried on by the chief Tuberculosis Officer and two assistants who are whole-time tuberculosis officers but who are able also to keep a few school clinics going and to supervise the few baby clinics which have been started since the war began.

Dr. Rigg has reported on his work in detail from which I give the following extracts:—

"In some respects the visiting of the homes of notified tubercular patients is still pioneer work. In some of the districts one finds a settled conviction that any fresh air is injurious to a patient with a chest complaint. There is often an inability to grasp, or a disbelief in, the fact that pulmonary tuberculosis is infectious. It may be found that there are two or more beds in a room and four, six, or more persons including children sleeping in it. Such circumstances render it difficult to get proper isolation of a tubercular patient. In other cases there are windows that were never

made to open. A belief in the injurious effects of night air is still widely held. Again the patients bedroom window may be open but he spends his time by a hot fire in a stuffy kitchen with the windows shut. He may scorn a sputum flask being satisfied with his accuracy in expectorating into Patients returning from sanatoria often quickly the fire. lose much of the benefit they have derived by adverse home conditions. . . In a good many cases on a first visit to a notified case shortly after the notification was received it was found that the patient had died. . . The number of patients attending the dispensaries increased considerably during the year. The weekly attendances were approximately as follows: -Scunthorpe 45, Cleethorpes 35, Bartonon-Humber 25, Brigg 15, Epworth 3. A large number of cases of suspected or latent pulmonary tuberculosis were seen especially in children. The majority improved considerably under treatment, but some cases (five were noted) developed later into unmistakable phthisis."

Tuberculin has been used in a considerable number of the cases both pulmonary and non-pulmonary. The results are not at all uniform but it has been found of especial value in tuberculosis of glands and also of bones and joints. In many pulmonary cases symptoms, particularly disturbances of the nervous system, are relieved and the patients state that they have a feeling of well-being whilst under this treatment. It has been given both intensively, that is by rapidly increased doses at short intervals and also by Sir Almroth Wright's method of repeated small injections at intervals of about a fortnight. This latter method is most suitable in cases of non-pulmonary tuberculosis. Tuberculin is in my experience a valuable remedy in suitable cases when given with great care and watchfulness.

The instructions given to the nurses on their visits of supervision to patients are as follows:—

- 1. Supervision of measures to prevent the spread of infection.
  - (a) Destruction of sputum.

Patients must be carefully instructed not to spit except into rags, paper, or a receptacle. Each should have a supply of rags or paper cut into small squares, which should be thrown on the fire after use.

Handkerchiefs should never be used.

If a sputum flask has not been provided, a small

mustard tin, lined with grease paper, makes a useful receptacle when the patient is out of doors. The contents should be emptied frequently, and the paper lining renewed.

If the patient is bed-ridden, the rags or paper squares mentioned above, should be put into a paper bag kept by the bedside, and the bag and contents burned before the sputum has time to dry. Flies must not have access to the sputum.

(b) Control of coughing.

Patients should be instructed to control the act of coughing as much as possible, and when coughing is unavoidable, to hold a rag or paper, not a handker-chief, in front of their mouths, and not their hands only.

- (c) Patients must refrain from kissing.
- (d) Each patient should sleep in a bedroom alone.
- (e) All articles used by the patient, such as bed clothing, and utensils for eating and drinking should be kept for the patient's sole use, and should be washed separately after the other family washing.
- 2. Supervision of Treatment ordered by the doctor.

The principles of sanatorium treatment must be carried out as far as possible in the home. They may be set out under the following heads:—

#### FRESH AIR.

Patients should be encouraged to sleep out of doors when shelters have been supplied, and to keep all the windows of the shelters open, except in stormy weather, when those on the weather side only should be closed.

Shelters should be kept as bare as possible from all hangings and clothing.

If a patient must sleep indoors, the head of the bed should, if possible, be placed near a wide open window.

The patient's bedroom should be kept free from ornaments, furniture and hangings as much as possible.

There should be no window curtains.

Patients should never be in any living room without the window being open as wide as possible.

#### Rest.

The nurse should see that the patient carries out the amount of rest prescribed by the doctor, preferably out of doors.

#### EXERCISE.

The nurse should see that the patient carries out the amount of exercise prescribed by the doctor.

#### TEMPERATURE.

It is very important that the nurse should teach the patient how to take and record the temperature accurately.

#### GENERAL.

Patients should be encouraged to take a generous diet, as may be prescribed by the doctor.

Should the patient have a bleeding, it is necessary that the ordinary medical attendant should be called as soon as possible, but the nurse should try to allay the patient'sfears and enjoin absolute rest and quiet.

Should any nurse desire to have some special instructions in regard to her duties, the Medical Officer of the nearest-Dispensary will be very glad to give her any information if she calls on the day and hour when he is in attendance.

#### 3. Shelters.

Information will be given to the nurse supervising a patient when a shelter has been supplied, and a list of all articles supplied with it will also be given. At each visit to the patient the nurse must inspect the shelter and all articles, such as bed and bedding supplied, to see that they are in good condition, and she must report the result of her inspection monthly. It is particularly necessary that the nurse should report at once when a patient ceases to use a shelter.

#### 4. In regard to Insanitary Conditions.

If insanitary conditions are observed in the house or surroundings of a patient, they should be reported in the monthly report to the County Medical Officer of Health.

### DETAILS OF A COMPLETE SCHEME TO COMBAT TUBERCULOSIS.

The campaign against tuberculosis in Lindsey is at the present time far from complete. A complete scheme to be carried out in co-operation with the District Councils would include: (1) notification of every case of tuberculosis. Noti-

fications are often forgotten or not sent until the patient is likely to die (2) better housing of the working classes especially in the rural districts (3) control of the milk and meat supply to ensure freedom from tuberculosis. this is not effectively controlled in any of the rural districts and even when meat inspection in urban districts is strict, there is no inspection for tuberculous (milk, (4) an educational campaign by lectures, posters and leaflets to inform the public of the early symptoms of the disease and the importance of securing early treatment and of how to live so as to avoid contracting it (5) institutional treatment in sanatoria hospitals, dispensaries and open-air schools. Sanatorium treatment is at present only available for insured persons and then only for short periods unless patients are sent, to sanatoria assisted by private benevolence or by the Boards of Guardians. There are no hospital beds for cases in need of nursing although an arrangement is made by the Insurance Committee with the Lincoln City Sanatorium for the reception of a very few advanced cases amongst insured persons. The dispensaries have already been described. There is no open-air school in the county but the Education Committee have recognised the importance of this class of institution and have arranged to send in 1916 some 28 or 30 children to residential open-air schools outside the county (6) After Care Committees and a working colony. The only After Care Committee is the one formed under the Insurance Act at Gainsborough. There is no working colony for patients suffering from tuberculosis who having returned from sanatoria are able to undertake light work under supervision but are not fit to resume their ordinary occupations.

# ISOLATION HOSPITALS.

There are no satisfactory isolation hospitals in the county. A description of each of the ten hospitals which are the existing provision for this purpose was given in my annual report for 1914, with a statement of the reasons why they are inadequate and unsatisfactory.

There is great need for modern isolation hospitals with a resident medical and nursing staff. The county scheme to meet this need is in abeyance during the war. There is accommodation for small pox patients in a hospital owned by the Brumby and Frodingham Urban District and in one owned by the Gainsborough Rural District.

### MILITARY CAMPS AND BILLETS.

As instructed by the Local Government Board I devoted a considerable amount of time in 1915 to the systematic inspection of camps and billets of troops in the area. On all occasions I was accompanied either by the Senior Medical Officer or by the Specialist Sanitary Officer. I was treated as a rule with much courtesy and was able to assist the Military Medical Officers to effect many sanitary improvements either by conference with the Officers in Command or by written representations to the D.D.M.S. at York. Several District Medical Officers of Health where troops are stationed report that they have been active in co-operation with the Military Authorities in making arrangements for the scavenging of camps and billets, for the isolation of cases of infectious illness and for disinfection of clothing, &c.

### SALE OF FOOD & DRUGS ACT.

The County Council administer, through the police, the Sale of Food and Drugs Act, and the Milk and Cream Regulations, 1912, throughout all the districts of the administrative county, with the exception of the Borough of Louth, which is a separate authority.

The number of samples submitted for analysis in 1915-totalled 270 as follows:—79 samples of milk, 27 of butter, 13 of lard, 62 of spirits and beer, 13 of bread, 5 of flour, 3 of pepper, 2 of mustard, 17 of tea, 1 of coffee, 16 of sugar, 4 of cocoa, 1 of cheese, 4 of confectionery and jam, and 23 of other articles.

Twenty-one samples were found to be adulterated as follows:—

Thirteen samples of milk were below the authorised standard; 7 samples of butter were found to contain varying percentages of boron preservative in terms of crystalised boric acid  $(H_3 B O_3)$ ; one sample of brandy was below legal strength.

Proceedings were taken in the case of all the 13 milk samples found below standard but only three convictions were obtained. It is a very serious matter that it is possible for milk to be sold with impunity with 20 per cent. deficiency in milk fat. As cows' milk is the sole food of very

# LINCOLNSHIRE-COUNTY OF THE PARTS OF LINDSEY.

Sale of Food and Drugs Act.
Return of the Action taken during the year ended 31st December, 1915, in regard to each Sample adversely reported on by the Public Analyst, showing what legal proceedings have been instituted and the result of proceedings, &c.

Remarks.	Defendant pleaded that the milk was sold as it came from the cow.		Defendant pleaded milk had not been tampered with.  Defendant pleaded milk had not been tampered with.			·	,
Costs.		1	15/-	4	15/-	1   1	
Fine.	10/-	1	11	£	111	10/-	
Result of legal proceedings.	Convicted Dismissed	Dismissed	Dismissed Dismissed	Convicted Dismissed Dismissed	Dismissed Dismissed Dismissed	Dismissed Dismissed Convicted	
Nature of Adverse Report.	5% milk fat deficient 20% milk fat deficient	10% milk fat deficient	7% milk fat deficient 6% milk fat deficient	13% milk fat deficient 2% mi k fat deficient 2% milk fat deficient	5% milk fat deficient 5% milk fat deficient 8.6 Degrees below legal limit	2% extraneous water and 5% milk fat deficient. 3% extraneous water 9% extraneous water	
Description of Sample.	Milk Milk	Milk	Milk Milk	Milk Milk Milk	Milk Milk Brandy	Milk Milk Milk	
Number of Sample referred to in Analyst's Reports.	H. 606 W. 634	B.B. 516	G.G. 651 S. 665	A. 430 A. 433 C. 410	H. 610 H. 611 G.G. 647	B. 474 H. 620 W. 655	
Report of Analyst for quarter ended	30th June, 1915	33 33	30th Sept., 1915	) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	33 33 33 33 33 33 33	31st Dec., 1915	

many infants and invalids it is imperative that the authorities and magistrates should realise the urgent necessity particularly now when infant life is so very precious of them being supplied with milk which is not only pure and unadulterated but also clean and free from the germs of tuberculosis.

In the Borough of Louth 15 samples were 'taken and analysed namely 5 of milk, 3 of preserved cream, 3 of butter and 4 of sugar. All were genuine.

# THE INSPECTION OF MIDWIVES.

# MIDWIVES ACT.

Miss Wheeley, the Inspector of Midwives, reports as follows:—

During 1915, 51 Midwives notified their intention to practise in Lindsey. Of these 31 were trained and 20 untrained.

Of 113 visits of inspection paid, 49 were to the trained Midwives and 64 to the bona-fides.

Of these four were enquiries.

Medical aid was required 39 times, 26 for the mother and 13 times on behalf of the child.

For	tho	mothers	tho	mangang	THORO	
COL.	1116	THALLBES		reasons	(// 2)	-

Prolonged labour	6
Complicated labour	
Other causes	
For infants the reasons were:—	
Prematurity	6
Eyes	1
Deformities	2
Convulsions	1
Still born	3

Besides these notices for medical aid, notifications were sent of 12 still-born, 4 of these were macerated, 2 were premature and one a malformed child.

Six notifications of the death of infants were sent in, these deaths were attributed to prematurity and feebleness, of these six children two were twins. There were four notifications of laying out the dead. Two Midwives were suspended from practice during the year 1915, one by the Scunthorpe M.O.H. because her patient developed scarlet fever, and one by the Grimsby Authority because a Grimsby patient became septic.

In spite of the increase of notifications that have been sent in as compared with 1914, the Midwives do not yet report as fully as required by the Central Midwives Board.

I do not think this reporting is wilfully omitted, but consider that the Midwives still find the rules complicated, and have not fully grasped their meaning. For example:—
I observe in turning over the reports of the Midwives frequently I have noted "still-births not notified," or "doctor sent for during puerperium not notified" and "Midwife did not understand rule."

I have not yet succeeded in making all of the Midwives realise that the equipment must be kept for its special purpose and not lent to neighbours, but the equipment is more complete than it used to be.

I am pleased to record that the Midwives' interest in the mothers and babies and in their work for them seems to increase and they are very willing to co-operate in efforts for their welfare.

### APPENDIX I.

### INSTRUCTIONS TO INFANT HEALTH VISITORS.

The County Council look to the nurses appointed as infant Health Visitors to carry out their duties with the greatest possible tact and discretion, remembering that the mothers will be more likely to resent than to welcome visits of instruction, unless they are approached in a kindly, helpful and sympathetic spirit. When conditions are found which are injurious to infant health, the health visitors must not be content with merely reporting them to the Medical Officer of Health. They are expected to use every endeavour personally to remove them.

Particular instruction should be given to mothers when necessary on the following points, namely:—

- 1—The importance of breast feeding.
- 2—The danger both of premature weaning and of breast feeding for too long a period.
- 3—The desirability of postponing weaning during the summer months.
- 4—The necessity if an infant has to be bottle fed of absolute cleanliness of the bottle. The feeding bottle should be boat shaped without a tube, and it should be kept in water between feeds. Any milk left over after a feed should not be used again for the infant.
- 5—Milk should be kept in a cool place, and the vessel covered by a piece of muslin to protect it from flies and dust.
- 6—Napkins after use must not be dried and used again without washing. They must not be washed in soda and they should be well rinsed from soap.
- 7—Opthalmia neonatorum is a disease notifiable to the Sanitary Authority. It is recognised by a purulent discharge from the eyes. Medical advice should be immediately sought for this condition.
- 8—The importance of inculcating from the beginning good habits in an infant, for example, the habit of taking food at regular intervals, and that of going to sleep without a comforter and without rocking.

- 9—The necessity to infant health of fresh air and cleanliness.
- 10—The importance especially in summer of burning all household refuse that can be burned, instead of allowing it to decay in an ashpit near the house where it becomes offensive and a breeding place for flies.
- 11—The importance and obligation under the Children Act, 1907, of seeking medical advice when an infant is ill or is not thriving.

### APPENDIX II.

### REGULATIONS FOR HEALTH VISITORS.

1—The names of the infants notified under the Notification of Births Act shall be supplied to the Health Visitors by the County Medical Officer of Health on cards which will enable them to keep a continuous record of each case if necessary to the end of the fifth year of life.

These cards are to be retained until asked for by the County Medical Officer of Health, unless the child dies or leaves the Health Visitor's district, when they must be sent to Lincoln without delay.

2—Each infant notified shall be visited by the Health Visitor as soon as possible after the tenth day from birth unless otherwise directed by the County or District Medical Officer of Health or parents' medical attendant.

If in doubt whether a visit should be paid, the Health Visitor should ask for direction from the District Medical Officer of Health.

- 3—After the visit, the Health Visitor shall make out a report in triplicate on forms provided for the purpose and shall send one to the County Medical Officer of Health and one to the District Medical Officer of Health. The report shall state whether further visits are to be paid and if so whether occasionally or frequently.
- 4—Further visits must be paid frequently; that is to say at least twice a month, if conditions are present which are likely to be injurious to the infant's health. They may be made occasionally, that is about once a month, if the conditions are only fairly good, or if a mother wishes to receive visits of instruction.
- 5—Infants visited frequently shall be reported upon monthly to the County Medical Officer of Health and to the District Medical Officer of Health with a note as to whether the unsatisfactory conditions have been removed, or are still present.
- 6—If an infant is not thriving and the parents do not seek medical advice after warning, the Health Visitor shall send a special notice to the County Medical Officer of Health and District Medical Officer of Health on the same form as is supplied for monthly reports.

### APPENDIX III.

Form for Infant Health Visitor's First Reports.

# (Lincolnshire) COUNTY LINDSEY COUNCIL. Official No. ..... Date ..... 19 Health Visitor's Report. Name of Parent..... Address Visitor..... Address Refuse near House ..... Other Insanitary Conditions ...... No. died under One year of age ..... Cows' milk......Kind of Patent Food ..... Health and General Condition ..... Remarks & Suggestions:—.... ....

Occasional visits.

Frequent visits.

No further Visits.

# APPENDIX IV.

Form for Second and Subsequent Reports by Infant Health Visitors.

# LINDSEY (Lincolnshire) COUNTY COUNCIL.

NOTIFICATION OF BIRTHS ACT.

Report of visit where conditions are not satisfactory.

Date	Official No
Name of Child	
Address	
Usual Doctor	· · · · · · · · · · · · · · · · · · ·
Nature of unsatisfactory condition	•••••••••••••••••••••••••••••••••••••••
· · · · · · · · · · · · · · · · · · ·	•••••
Report on above	
······································	
	,
Health Visitor	
Address	

# ABSTRACT

OF

DISTRICT REPORTS.

### URBAN DISTRICTS.

### ALFORD.

Housing Accommodation—Sixteen houses have been cleansed, repaired, etc., without closure. Some of the houses are in poor repair. No inspections were made under the Housing Regulations.

Water Supply—The greater part of the water supply is obtained from wells, some of which are surface wells and are liable to pollution from house drains. Dr. Bosson writes: "Where possible I should urge that advantage be taken of the public water supply as some of the wells and drains in the smaller type of property are not wholly, satisfactory and from their plan of structure are not quite free from risk of contamination. The Water Company have a main in the chief street of the town.

Dairies, Cowsheds and Milk Supply—There are 13 cowsheds on the register to which 156 inspections have been made. There are 50 milch cows in the district. In the opinion of the Medical Officer of Health the removal of excrement from cowsheds leaves much to be desired. Details of insanitary cowsheds are given.

Slaughter-houses—There are five on the registers to which 60 inspections were made. In one case defects were found and remedied.

Bakehouses—There are nine in the district. They appear clean and well kept.

Unsound Food—No carcase or portion of carcase was condemned for tuberculosis during the year. Systematic inspection can only be carried out satisfactorily in a public abattoir.

Pollution of Rivers—No complaint has been made of the pollution of the Wold Griff Drain.

Sewerage and Sewage Disposal—A Committee investigated the sewage disposal in July and August, and a comprehensive scheme was drawn up dealing with the several processes. This has since been in operation and has been working in a satisfactory manner.

Disposal of Refuse and Excrement—The scavenging is done by a contractor appointed by the Council. Dr. Bosson writes: "Several houses have no receptacle for ashes and

refuse at all, others have large ashpits, some are covered and a large number are uncovered. Each house should have sanitary bins provided. The closet accommodation is chiefly vaults. There are some pails and a few water closets. Some houses have not got separate closet accommodation. The pails tend to be overful if used by more than one family. Little attempt is made to use dry earth as a deodorant."

Common Lodging-houses—There are none.

Offensive Trades—There are two in the district, one a bone merchant in the south end of the town and the other a fellmonger in the centre of the town. A complaint was made in regard to the latter place and after some trouble the complainant was perfectly satisfied that the alleged nuisance was abated. No complaints are to hand concerning the conduct of the other offensive trade.

### BARTON-ON-HUMBER.

Housing Accommodation—There are 1,689 inhabited houses. Nine plans for alterations or additions to existing buildings were passed during the year. 76 houses were inspected under the Housing Regulations. Four were closed voluntarily as unfit for human habitation, and 61 remedied without a closing order.

Water Supply—Less than half the houses are supplied from the mains, and many householders have complained of scarcity during the year.

Dairies, Cowsheds and Milk Supply—There are 28 cowsheds on the register which are visited frequently. The milk supply is not equal to the demand.

Slaughter-houses—There are six in the district which receive monthly visits.

Bakehouses—There are six of these premises which are visited frequently.

Unsound Food—None was condemned during the year. Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The marsh lane sewer and connection has been completed and is satisfactory. The Medical Officer of Health considers that a number of manholes should be constructed so that the system could be more easily inspected and flushed.

Disposal of Refuse and Excrement—Scavenging is not satisfactory. Many complaints are received. The carts containing foul matter should not be allowed in the streets during the daytime.

Common Lodging-houses—There are none.

Offensive trades—No reference.

### BRIGG.

Report Taken from Sanitary Inspector's Return.

Housing Accommodation—Eighty-six houses were found to be unfit for human habitation. Twenty cases of overcrowding were found. Five new houses were built during the year.

Water Supply—Two new wells were sunk. 611 houses are supplied either from St. Helen's Well or Castlethorpe Spring.

Dairies, Cowsheds and Milk Supply—There are three registered dairies. Twenty-seven inspections were made. The four cowsheds were visited 52 times. 31 milch cows in the district.

Slaughter-houses—There are five on the register to which 141 inspections were made. Six contraventions of bye-laws were found and were remedied.

Bakehouses—There are five registered bakehouses and 79 inspections were made in respect of them. One contravention found was remedied.

Unsound Food—Thirteen articles were surrendered during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—A certain amount of routine repairs to drainage was carried out during the year. There are satisfactory sewage disposal works.

Disposal of Refuse and Excrement—There are one covered and one uncovered ashpits in the district. 746 houses are using bins. There are one privy vault and 720 pail closets in the district. 199 houses have water closets.

Common Lodging-houses—There are two registered to which 40 inspections were made. There were six contraventions which were remedied.

0

Offensive Trades—There are none.

### BROUGHTON.

Report Taken from Sanitary Inspector's Return.

Housing Accommodation—Seventy houses were inspected under the Housing Acts. Two were repaired without closure. One case of overcrowding was abated. Three new houses were built during the year.

Water Supply—Three new wells were sunk.

Dairies, Cowsheds and Milk Supply—Five cowsheds were inspected monthly. 50 milch cows in the district.

Slaughter-houses—There are three on the register. One not in use. Fourteen inspections were made.

Bakehouses—There are none.

Unsound Food—None found.

Sewerage and Sewage Disposal—There is no public sewerage.

Disposal of Refuse and Excrement—There are six covered and four uncovered ashpits in the district. Refuse is removed by householders when required and disposed of on gardens. Three houses have pail closets and nine have water closets.

Common Lodging-houses—There are none.

Offensive Trades—There are two fried fish shops and one tanyard Twelve inspections of them were made.

### BRUMBY AND FRODINGHAM.

Housing Accommodation—The Medical Officer of Health reports that the houses of Frodingham are small and cramped and their hygienic condition is fatal to the continued health of the locality.

Water Supply—The township of Frodingham with Brumby is supplied from a deep well at Appleby about three miles away, from whence it is pumped to a storing reservoir at a considerable elevation. The new bore has been deepened and extended during the year, and the yield is now well capable of meeting the requirements of the Council's area. The storage capacity of the reservoir is insufficient. The water is treated with hydrated lime before being pumped into the reservoir and a softening plant is installed at the pumping station. Analysis has proved the water to be wholesome for domestic or public use. In the !Trenti valley the supply is from soft water stored in cisterns.

Dairies, Cowsheds and Milk Supply—There are eight cowsheds in the district and 100 cows are milked. All thecowsheds have been inspected, four times by the Sanitary Inspector and twice by the Medical Officer of Health. These were found very satisfactory as regards cleanliness, ventilation, air space and drainage. In one or two cases complaints were made in regard to the floors, but these have been repaired. The larger farms have modern and hygienic cowsheds and facilities for the rapid disposal of milk. Instructions have been given in regard to the grooming of cows and the keeping of the udders clean. There are no registered milk shops in the district.

Slaughter-houses—There are none.

Bakehouses—There are none.

Unsound Food—No reference.

Rivers and Streams—The western area is drained directly by the Trent into which the trifling amount of sewage, finds its way by ditches. The Santon Beck is the main drain in the eastern area, but no sewage is admitted into it without purification.

Sewerage and Sewage Disposal—The public sewerage and sewage disposal plant, which has been in operation for nearly five years, is satisfactory. The old disconnected sewers are used for storm water. At Old Brumby a number of semi-detached villas cannot be connected to the Council's sewers and these are for the present drained through cesspools. Such cesspools are a menace to the health of the district and should not be permitted. The Council's scheme for the draining of these houses, which has been approved by the Local Government Board, is held up by the war, a loan being unobtainable. The sewage from the west side is discharged into the river Trent.

Disposal of Refuse and Excrement—House refuse is collected weekly by scavengers. The system, however, is far from universal. The Council have drawn up special posters drawing attention to the fact that all houses must be provided with suitable bins. There are w.c.'s in 70 houses, but the majority of the houses have box closets. W.c.'s are compulsory in all new buildings.

Common Lodging-houses—There is one common lodging-house in the district which accommodates 30 men.

Offensive Trades—There are none.

### CLEETHORPES.

Housing—167 dwelling-houses were inspected under the Housing and Town Planning Act during the year. Three were found unfit for human habitation, and three closing orders were made. In 137 instances defects were remedied without a closing order having to be made. 85 new houses were erected, and 25 altered and adapted for other purposes.

Water Supply—The water supply, with the exception of outlying places, is obtained from the Grimsby Water Company's supply. Samples of water taken for analysis during the year were as usual found satisfactory both from a chemical and bacteriological standpoint.

Dairies, Cowsheds and Milk Supply—Most of the milk in the district is imported by 25 purveyors from neighbouring There are 93 milk shops in the district. There is one registered cow keeper in the town who keeps between 30 and 40 cows. The cowshed is satisfactory, but the grooming of the cows and the dress of the people employed to milk them leave much to be desired. The milk shops are frequently visited by the Sanitary Inspectors who find it difficult to instil into the people the necessity of keeping the vessels that contain the milk covered. The Medical Officer of Health recommends that the examination of milk chemically and bacteriologically should be arranged for by the County Council, who should also employ a veterinary surgeon to inspect the cows at the farm and see to the general sanitary arrangements of the cowsheds.

Slaughter-houses—There are eight licensed slaughter-houses, all private. The licenses are renewed annually. Frequent visits are made during slaughtering. The Sanitary Authority does not allow the slaughter-houses to be sublet, obviating to some extent the risk of the slaughter of diseased cattle at irregular hours. The sanitary condition of the houses is satisfactory. The disposal of garbage is more efficient than formerly as the butchers are allowed to send it to the refuse destructor.

Bakehouses—There are 20 bakehouses, all above ground, none of which use mechanical power. Frequent visits are paid. They are whitewashed twice a year.

Unsound Food—During the year a certain amount of unsound food was seized. No legal proceedings were taken during the year. Two carcases of beasts were condemned on account of tuberculosis.

Pollution of Rivers—The Carr drain which forms part of the boundary of the district between Grimsby and Cleethorpes is polluted chiefly from manured land and the household refuse of some houses known as the Battery on Old Clee Road and is still a menace to public health. The fields at the western end of the drain are a playground for children and it is a significant fact that a great many of the diphtheria cases occur in that neighbourhood. The Cleethorpes Urban Council have cleaned it out in their area.

Sewerage and Sewage Disposal—Considerable progress has been made during the year with the new scheme of drainage which will cost £80,000 to complete.

Disposal of Refuse and Excrement—The water carriage system is in vogue in the district, only 30 privies now remaining to be converted. All new houses have the galvanised ashbin, and the old brick ash receptacles in the older property are gradually being done away with. Two have been abolished during the year. The scavenging of house and trade refuse is in the hands of the District Council. Collections are made once a week in winter and twice a week during the summer months. The refuse from business premises is more frequently removed. The refuse is dealt with by the destructor, which has worked satisfactorily and has proved an economical method of disposal. Special stress has been laid upon the importance of the frequent removal of manure by owners of stables as required by the bye-laws.

Common Lodging-houses—There are none.

Offensive Trades—The only offensive trade in the district is that of a fat extractor whose premises were previously in a field on the outskirts of the town. The Council have passed plans for a modern building in Humber-street for this trade. No complaints have been received since the change of situation was made.

### CROWLE.

Housing Accommodation—Two new houses were built during the year. 170 inspections were made under the Housing Regulations. In 138 cases defects were found and notices duly served, and in 62 instances the defects were remedied.

Water Supply—The houses are supplied by private wells. The water is excessively hard. Dr. Alexander advises that

large rain water tanks should be insisted upon where the supply is insufficient. All new houses are required to have cisterns. One new well was sunk during the year.

Dairies, Cowsheds and Milk Supply—There are 25 on the register They were inspected once every two months. There are 61 milch cows registered in the district. The general condition of the cowsheds was found to be good.

Slaughter-houses—There are seven on the register to which 84 inspections were made. They were all found to be kept in a clean condition.

Bakehouses—There are five of these premises in the district, none of which are underground. During the year 60 inspections were made and no contraventions of 'the Factory Act were found.

Unsound Food—No unsound meat was seized during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No system of sewerage exists in the district. The only public drainage is for surface water.

Disposal of Refuse and Excrement—The scavenging is in the hands of the Council. Privy and ashpit manure is carted away regularly and put on the land quite away from any habitation. There are four houses with privy vaults, 83 with pail closets, and five houses have water closets. Six pail closets were substituted for privy vaults.

Common Lodging-houses—There are two registered in the district to which 22 inspections were made. There were no contraventions of the bye-laws.

Offensive Trades—There are none.

Notification of Births Act—This is administered by the District Council and carried out with benefit to the district. A crèche was started during the year and became practically self-supporting.

### GAINSBOROUGH.

Housing Accommodation—729 inspections and re-inspections were made to 443 houses under the Housing Act. Defects were found in 342 houses. Four cases of over-crowding were abated during the year. Twenty-seven new houses were built.

Water Supply—No reference.

Dairies, Cowsheds and Milk Supply--There are eight cowkeepers in the district with 16 cowsheds. General cleanliness is maintained.

Slaughter-houses—There are 18 registered or licensed slaughter-houses in the district. Regular inspections were made during the year and the condition of the premises found fairly satisfactory.

Bakehouses—There are 12 bakehouses on the register. Fifty visits were paid to these premises during the year. In four instances request for limewashing had to be made.

Unsound Food—Three carcases of sheep, four boxes of smoked haddocks, six boxes of bloaters, five brace partridges and 72 tins of tinned goods were seized or surrendered during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No reference.

Disposal of Refuse and Excrement—Out of 4,532 loads of refuse collected 4,490 were delivered at the destructor. There was an increase in the number of loads collected under the pail system due to the more frequent emptying required from billets by the military.

Common Lodging-houses—No reference.

Offensive Trades—There are tripe boilers, hide and skin dealers and a gut scraper in the district. They were frequently visited during the year.

Factory and Workshop Act—107 workshops and workplaces on the register not including bakehouses. All visited. Lists of outworkers received and homes visited and found satisfactory.

### HORNCASTLE.

Housing Accommodation—No new houses were built during the year, there being an increased number of empty houses owing to the war. 152 inspections were made under the Housing Regulations. Repairs to eleven houses were ordered, and in nine other cases repairs were carried out without any order being made. One case of overcrowding was found and remedied.

Water Supply—Three samples of water, sent by the Water Company, were bacteriologically examined, two being pronounced very good and one, although not containing anything pointing to sewage pollution, was not quite so good.

A sample of well water from Prospect-street was found polluted. Water from the main has since been laid on.

Dairies, Cowsheds and Milk Supply—A. Dr. Gerber's Milk Tester was obtained and out of eleven samples taken four were found clean, four moderately so, and three very dirty. There are seven milk sellers and seven dairies. The premises were visited and found fairly clean. The structural condition of the floors of cow houses is no better.

Slaughter-houses—There are five of these premises, which were visited frequently. Bye-laws were contravened in one case, viz., slaughtering in an unlicensed building. Four informal notices were given in other cases which had the desired effect.

Bakehouses—There are 13 bakehouses in the district, two of which are underground. They were frequently inspected during the year and found reasonably clean and in a sanitary condition. In most of them there is still a lack of good flooring material, the brick floors getting very much the worse for wear.

Unsound Food—An unsound carcase of a lamb was discovered on unlicensed premises dressed for sale as human food. It was immediately seized and condemned by a Justice of the Peace. Fines of £5 and £3 costs were imposed.

Pollution of Rivers—There is no pollution of rivers as there are no factories or chemical works.

Sewerage and Sewage Disposal—No new lengths of sewer have been laid during the year, but two ventilating shafts were fixed upon parts of existing sewers where they were thought desirable.

Disposal of Refuse and Excrement—14 privy middens were converted into water closets during the year. In the district there are 236 privies with fixed receptacles, 30 privies with movable receptacles, 659 fresh water closets, and 74 waste water and hand-flushed closets.

Common Lodging-houses—No reference.

Offensive Trades—There are two receivers and dressers of fallen stock. One being on the outskirts of the town, not near enough to cause annoyance, whilst the other is nearer, but no complaints were received during the year.

### LOUTH BOROUGH.

Housing Accommodation—Forty houses were inspected under the Housing Regulations during the year. Defects in all were remedied without a closing order. There appears to be an adequate supply of houses for the working classes. One case of overcrowding was detected, and the family removed to another house.

Water Supply—The Water Company's water has been analysed by Dr. Thresh for the Company. The analyst's report shows that bacteriologically it is of excellent quality. It contains comparatively few bacteria, and none of an objectionable kind. Nine samples from the Water Company's tap were chemically analysed by the Medical Officer of Health and found good, whilst one sample out of six from wells was found to be polluted.

Dairies, Cowsheds and Milk Supply—There are two dairies on the register and 24 registered cowsheds. There are about 170 milch cows in the district. Twenty-six inspections in all have been made.

Slaughter-houses—There are 17 registered slaughter-houses in the district to which 17 inspections were made during the year. No contraventions of the bye-laws was detected.

Bakehouses—There are 15 bakehouses in the district.

Unsound Food—No articles of food were seized during the year.

Pollution of Rivers.—No reference.

Sewerage and Sewage Disposal—The bricking up of the drains and sewers with the new system is in progress, though not yet completed. The effluent from the sewage disposal works has been analysed on several occasions and found satisfactory.

Disposal of Refuse and Excrement—About 15 per cent. of the houses in the district have water closets. Forty-five water closets have been substituted for dry closets during the year. Scavenging is done by a contractor who removes the excrement to agricultural land outside the town. House refuse is removed by scavengers to a disused lime pit near the town. Complaints have been made of objectionable odour from this pit, and the Medical Officer of Health has advised that the refuse be covered by earth to minimise the smell. Householders are recommended to burn all combustible refuse in preference to putting it into the ashpit or sanitary pail. There are five privy vaults still in the district.

Common Lodging-houses—There are two registered common lodging-houses in the district both of which are satisfactorily conducted.

Offensive Trades—There are four of these premises. Complaints have been made of smell from one, viz., a fat; melting and fellmongering business in Charles-street. Improvements in the processes have been made. Application has been made to the Local Government Board for an order to adopt new bye-laws in regard to these premises.

### MABLETHORPE.

Housing Accommodation—The number of inhabitated houses is 432. No reference is made to inspections of these. Plans have been passed for two new houses.

Water Supply—No reference.

Dairies, Cowsheds and Milk Supply—These, the Medical Officer of Health believes, are kept in good order.

Slaughter-houses—There is no public slaughter-house in the district. There are two private ones, which have been inspected frequently and found to be well kept.

Bakehouses—There are three in the district which are kept clean and well ventilated. There are no underground bakehouses.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—One of the pumps of the wind engine at the disposal works is defective, but will be remedied as early as possible. The land at the sewage farm has been cultivated with swedes.

Disposal of Refuse and Excrement—The scavenging of the district has been fairly well done. The billeting of troops has necessitated more work, but it has been systematically carried out, any extra cost being borne by the Want Office.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

### MARKET RASEN.

Housing Accommodation—Under the Housing Regulations 165 houses were inspected, and nine were repaired without closure.

Water Supply—95 per cent. of the houses in the district are supplied from the public supply.

Dairies, Cowsheds and Milk Supply—There are eight registered cowsheds and dairies. They have been inspected half-yearly.

Slaughter-houses—There are five on the register, to which 60 inspections were made during the year. One contravention of the bye-laws was remedied.

Bakehouses—There are six registered bakehouses. Sixty visits were paid to them during the year.

Unsound Food—Fifteen articles were seized and fifteen surrendered.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The remarks falling under this heading in the last report still apply.

Disposal of Refuse and Excrement—The scavenging is fairly satisfactory. There are 125 privies with fixed receptacles, 238 with movable receptacles, 187 fresh water closets, and one waste water and hand flushed closet. During the year eight privies were converted from fixed to movable receptacles, seven privies with fixed receptacles were converted to waste w.c.'s, and two privies with movable receptacles were converted to fresh w.c.'s.

Common Lodging-houses—There is only one and it is cleanly kept and well ordered.

Offensive Trades—There are two fellmongers in the district. In one case the premises are unsuitable, both in construction and on account of their position, being a house in the centre of a row of dwelling-houses in the town. This business should be removed to suitable premises.

### ROXBY-CUM-RISBY.

Housing Accommodation—All the houses in the district, 117 in number, were inspected during the year under the Housing Regulations. One house was closed, being unfit for human habitation.

Water Supply—Twenty houses in Roxby, and all the houses in Dragonby are connected with the public supply. The rest of the houses are supplied from private wells. The Medical Officer hopes that more connections to the public supply will be made in 1916.

Dairies, Cowsheds and Milk Supply—There is one registered cowshed. It has been regularly inspected and found to be in good order.

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There are no slaughter-houses or bakehouses.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—At Dragonby the drains end in a settling chamber which is emptied periodically.

Disposal of Refuse and Excrement—In Roxby the scavenging is done by householders, but in Dragonby it is undertaken by the District Council. There are 64 houses provided with pail closets and 63 with privy vaults. Three privy vaults were converted into pail closets during the year. It is most strongly urged by the Medical Officer of Health that all privy vaults be replaced by pail closets as opportunity occurs, and that the type of pails used be improved.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

### SCUNTHORPE

No report.

### SKEGNESS.

Housing Accommodation—Twenty-seven houses were inspected under the Housing Regulations. The war has affected the proceedings in this direction, it having been decided, to take no steps in regard to eight representations which were made by the Sanitary Inspector. The Medical Officer of Health again takes the opportunity of recommending very strongly to the consideration of the Council Part II. of the Housing and Town Planning Act. He points out that in a rapidly growing resort such as Skegness there is everything to gain for the authority to plan its future development. By the adoption of Part II. of the Housing and Town Planning Act overcrowding and many other evils can absolutely be prevented. Preliminary steps could be taken during this period of temporary stagnation ready for the time when the progress of the town will be even more rapid than before.

Water Supply—A plentiful and adequate public supply of pure water was obtainable during the whole of the year.

Dairies, Cowsheds and Milk Supply—There are now nine dairies, ten cowsheds and two milk shops on the register, which have been very frequently inspected. Those engaged in the cowsheds do not seem to appreciate the need for cleanly methods in milk production.

Slaughter-houses—The four slaughter-houses within the distric; were frequently inspected and the butchers were found to have exerted every care in regard to the preparation of meat for human consumption.

Bakehouses—There are now only five bakehouses in the town. These are kept satisfactorily.

Unsound Food—During the year one rabbit unfit for human food was seized and condemned by a magistrate. The vendor, who was a first offender, was warned.

Sewerage and Sewage Disposal—Dr. Wallace again points out that he believes the time is not far distant when it will be advisable to remove the disposal works to a more remote site.

Disposal of Refuse and Excrement—There are still a few fixed ashpits in use, which should be discontinued as soon as possible. Dr. Wallace writes: "It would astonish many to see the receptacles some persons deposit their rubbish into, and so long as the occupiers' responsibility for the condition of the ashbin is so small, much improvement need not be looked for, notwithstanding any powers granted by Parliament. During the year a daily collection of refuse from the billets occupied by the military has been carried out."

Common Lodging-houses—There is one common lodging-house in the district, which is far from being satisfactory, and requires very careful supervision.

Offensive Trades—There are none.

### WINTERTON.

Housing Accommodation—Housing generally is good. The number of inspections is not specified. It was necessary in one instance to serve an order in the case of a house unfit for habitation. Repairs were effected. Plans for two new houses were passed during the year.

Water Supply—Seventy per cent. of the houses have the public water supply laid on. There are still many houses without the supply where the well water is suspicious, and it is hoped that before long these will come into line.

Dairies, Cowsheds and Milk Supply—All the dairies and cowsheds have been inspected. Some of them were found to be without the town's water. This was soon remedied on representations being made to the landlords concerned.

Slaughter-houses—There are two registered and two licensed slaughter-houses in the district, all privately owned. They have been regularly inspected and have been found to be cleanly kept. They are all supplied with the town's water.

Bakehouses—These have been inspected and found to be kept exceptionally clean and limewashed. There are no underground bakehouses.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The drainage of the town continues to be improved by replacing old and defective drains by new sanitary ones. One length of sewer 110 yards long has been relaid, in part extended, on Winterton Road to the Manse.

Disposal of Refuse and Excrement—There is a system of public scavenging. There are 300 pan closets emptied weekly. The difficulty in procuring a suitable site for a tip has resulted in the question of the efficient disposal of refuse being hung up.

Common Lodging-houses—There are none.

Offensive Trades—There is only one fellmonger's business in the district. No nuisance has been noticeable. There are complaints that occasionally offal has been boiled on, other premises, but no direct evidence has yet been obtained.

### WOODHALL SPA.

Housing Accommodation—During the year 20 houses were inspected under the Housing Regulations. No defects were found.

Water Supply—Fifty houses situated in Witham Road, Mill Lane and Kirkstead have been connected to the Water Company's main. One sample from the main, which was bacteriologically examined was found to be good.

Dairies Cowsheds and Milk Supply—The milk supply is chiefly imported. There are five milk sellers whose premises have been inspected quarterly, as also have the premises of three cowkeepers.

Slaughter-houses—There is only one slaughter-house, although there are three butchers. It has been inspected several times during the year and found satisfactory.

Bakehouses—The three bakehouses have been inspected twelve times and found fairly clean and tidy.

Unsound Food—Some decomposed fish, which had been received by a fish merchant from his wholesale house, had been buried on the Medical Officer's arrival to inspect.

Pollution of Rivers—No reference.

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Sewerage and Sewage Disposal—No new work has been executed during the year. One bacteria bed was washed.

Disposal of Refuse and Excrement—There are 29 privies with fixed receptacles, 38 privies with movable receptacles, and there are 496 fresh water closets. The scavenging of house refuse is carried out by a scavenger in the urban part of the district, the refuse being burnt at the sewage farm. At the Witham end of the district scavenging is left to householders. The Medical Officer of Health has advocated sanitary ashbins, but except in one or two instances in the Witham Road, they have not been obtained.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

### RURAL DISTRICTS.

### GLANFORD BRIGG.

Report Taken from the Sanitary Inspector's Returns.

Housing Accommodation—522 houses were inspected in the district, 132 in the Western division and 390 in the Eastern. 137 houses were repaired without closure in the Eastern division and 5 were closed and 2 demolished. In the Western division there is no report of any houses having been repaired, but 1 was closed. 37 new houses were built throughout the district. There is a scarcity of houses in Kirton Lindsey and North Killingholme.

Water Supply—There is a public supply to Kirton-in-Lindsey and South Ferriby. Seven new bores were sunk. There is no report upon the progress of the scheme for a public water supply to Ulceby.

Dairies, Cowsheds and Milk Supply—Details are lacking for the Western division. On the East side 80 inspections were made to the 68 cowsheds on the register. There are 420 milch cows in that area.

Slaughter-houses—There are no slaughter-houses registered. Details are lacking for the Western division. In the East there are 68 premises to which 80 inspections were made.

Bakehouses—There are eight in the Eastern district. 31 inspections were made.

Unsound Food—An unsound carcase of a sheep was buried by the owner.

Offensive Trades—There are three at Killingholme to which 18 inspections were made.

Sewerage and Sewage Disposal—Ashby and Crosby are the only parishes with sewage disposal works. A number of lengths of new sewers were laid especially at East Halton and South Killingholme. A number of drain repairs were ordered.

Disposal of Refuse and Excrement—The pan closet system is chiefly in vogue, but privy middens are still very numerous. There is a system of public scavenging in 13 parishes.

Common Lodging-houses—Nineteen visits were paid to the three common lodging-houses. One contravention of the bye-laws found was remedied.

### CAISTOR.

Housing Accommodation—About 510 houses were inspected under the Housing Regulations. Four were reported unfit for human habitation and closing orders were made in two cases. Seven new houses have been built during the year. The Sanitary Inspector strongly recommends the use of waterproof cement on the lower part of the walls of cottages affected with dampness. A very insanitary house in Caistor is still occupied in spite of the Inspector's representations.

There is a scarcity of houses in Keelby, Caistor, Clixby, Grasby, Nettleton, Rothwell, Swinhope, Middle Rasen and Linwood.

Water Supply—The pipes conveying the drinking water to certain cottages in Kirmond have been relaid by the owner of the property at the request of the local authority. As recommended, the Managers of the Tealby D'Eyncourt School have discontinued their present water supply and obtain it now from the Tealby mains. A better supply is needed for Swallow, Searby, Middle Rasen, North Kelsey

Moor, South Kelsey, Thornton, Osgodby, and Normanby-le-Wold. A house in North Owersby Moor is urgently in need of a water supply.

Dairies, Cowsheds and Milk Supply—Two large dairy farms have been discontinued during the year, reducing the number to 57, and of cows from 350 to about 300. Attention is drawn to the filthy state of the cows udders and flanks.

Slanghter Houses—There are seven in the district. 31 inspections have been made. Two of these premises are not very satisfactory. There is want of regular periodical limewashing and the drainage of one is bad.

Bakehouses—The six bakehouses have received 13 inspections. One complaint was made by the factory inspector as to want of limewashing. This was rectified.

Unsound Food—A tuberculous carcase was seized at Middle Rasen. It was condemned and destroyed by order of the magistrates.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No public drainage has been done during the year. From Barnetby village untreated sewage still flows into Bigby parish. Limber is in the same very insanitary condition as to drainage as it has been for many years. The only remedy is the laying of a sewer down the village street. Riby Camp has at last been drained on a plan as defined in the report of the Medical Officer for 1914. The sewage plant at the Caistor Workhouse has been improved.

Disposal of Refuse and Excrement—There is public scavenging at Caistor, North Kelsey and Keelby. The number of deep vaults and uncovered ashpits in proximity to inhabited houses has been much reduced during the year and there are now few left. They have been replaced by modern and sanitary arrangements safe-guarded by cement work.

Common Lodging Houses—There is only 1 registered house. It is kept in good order and has been inspected on 12 occasions.

Offensive Trades-No reference.

### GAINSBOROUGH.

Housing Accommodation—Plans for two new houses and additions to two others were passed during the year. No inspections were made under the Housing Regulations.

Water Supply—No reference.

Dairies, Cowsheds and Milk Supply—The milk supply of the district is on the whole good. The cowsheds 33 in number have been inspected and found in good order.

Slaughter-houses—No references.

Bakehouses—All these premises are in good order.

Unsound Food—No tuberculous meat was found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No reference.

Disposal of refuse and excrement—No reference.

Common Lodging Houses—No reference.

Offensive Trades—No reference.

### GRIMSBY.

Housing Accommodation—Under the Housing Regulations 78 inspections and re-inspections were made. Repairs were carried out to 25 houses and 55 nuisances were abated. A special inspection of 46 empty houses was made at the request of the owners, the Great Central Railway Company. It was decided that the repairs should be held over until applications are received from would-be occupiers. 30 new houses have been certified as fit for habitation.

Water Supply—There is nothing further to report under this heading, but a full description of the source of supply of the district was given in the report for 1914.

Dairies, Cowsheds and Milk Supply—There are 92 cowsheds and 4 purveyors of milk in the district. At the last inspections there were 927 milch cows in the district. The milk is chiefly sent to the Borough of Grimsby. There is one milk shop at Little Coates. The cowkeepers in general endeavour to comply with the regulations.

Slaughter Houses—The 6 premises are visited frequently and found generally in a cleanly and sanitary condition. Urban powers have been obtained, but at the end of the year the bye-laws passed by the District Council had not received the sanction of the Local Government Board.

Bakehouses—These are visited frequently and are found generally to be in a cleanly and good sanitary condition.

Unsound Food—A small quantity of meat and fish was destroyed during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No detailed reference.

Disposal of Refuse and Excrement—The scavenging at Immingham and Little Coates is done by contract and has been carried out satisfactorily. In the case of Little Coates only dry refuse is removed, as the parish has a water carriage system whereas Immingham is still on the box closet system.

Common Lodging Houses-No reference.

Offensive Trades—There are some fish curing premises in the district which have been inspected during the year, but since the outbreak of war there has been but little business done. Since the alterations were carried out at the liver boiling premises mentioned in last year's report, no nuisance has been reported.

### HORNCASTLE.

Housing Accommodation—470 houses have been inspected under the Housing Regulations during the year necessitating 600 visits. 14 were found unfit for human habitation, 2 of which were closed by order of the District Council, 4 were closed by the owners voluntarily, and in 2 defects were remedied after the closing order had been made. Defects in 56 cases were remedied without a closing order. Plans for the erection of new buildings were passed in two cases.

Water Supply—Four new cisterns have been sunk in the south and west parts of the district where it is not possible to obtain a supply by any other means. Two new wells have been sunk

Dairies, Cowsheds and Milk Supply—There are 32 milk sellers registered in the district. There is room for improvement in the cleanliness of the premises used by the milk sellers. Mention is made by the Medical Officer of Health of heaps of manure being allowed to accumulate within a few yards of the doors.

Slaughter-houses—There are 16 slaughter-houses in the district all privately owned. Frequent visits have been paid to them. All the floors are now of concrete. There are

two at Mareham-le-Fen which might well be a model for the rest of the district.

Bakehouses—There are 22 bakehouses, all of which are kept in a cleanly condition.

Unsound Food—No reference.

Pollution of Rivers—In three cases drains were found to be polluting streams, and in each case were cut off.

Sewerage and Sewage Disposal—One length of new sewer was laid during the year at Tattershall. 59 new drains to houses have been laid, 95 trap gulleys have been put down, five new ventilating shafts to sewers and drains have been erected, and 42 cess pools, all made and rendered in cement, have been constructed.

Disposal of Refuse and Excrement—Ten new water closets were built, 15 new pail closets put in, and 26 privy middens converted into pail closets. Dr. Boulton urges that public scavenging should be instituted for Coningsby.

Common Lodging-houses—There is one common lodging-house at Coningsby. Frequent inspections have been made of it during the year. The building does not lend itself to being a model lodging-housee.

Offensive Trades—No reference.

# ISLE OF AXHOLME.

Housing Accommodation—During the year 120 houses have been inspected under the Housing Regulations. 51 notices were sent to various owners to remedy defects, a large portion of which have been carried out. Three plans for new houses were considered by the Council.

Water Supply—During the abnormal dry period in the Summer, the scarcity of water was felt in some of the parishes where the provision of storage tanks is not largely in excess of the council's requirements.

Dairies, Cowsheds and Milk Supply—The registered cowsheds have been periodically inspected. In the cow houses where milk is produced for private consumption and also in the case of the registered cow houses there is room for improvement as regards more frequent whitewashing of the premises.

Slaughter-houses—There are 12 registered slaughter-houses, which have been regularly visited. Little fault could be found with their condition, or with the health of the animals on the premises.

Bakehouses—The two registered bakehouses, which are both in Epworth, are kept clean and in good condition.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The whole of the sanitary dykes throughout the district have been regularly and properly cleaned out during the year. The Eastoft underground drainage has also been cleaned out, and where necessary the pipes taken up and relaid. Twenty yards of 6in. sanitary pipe has been laid in Belton Parish, and 75 yards of 4in. sanitary pipe in Epworth.

Disposal of Refuse and Excrement—No reference.

Lodging-houses—The only registered lodging-house in the district is at Epworth. It is kept in a satisfactory way.

Offensive Trades—No reference.

### LOUTH.

Housing Accommodation—The number of houses inspected under the Housing Regulations was 204. 43 had defects remedied without closing order. Only five new houses have been erected this year. Additions and alterations have been made to six houses by adding extra rooms, wash-houses etc., thus considerably improving them. There were no complaints of insufficiency of accommodation or scarcity of houses in this district. The cottages occupied by the working classes are on the whole fairly good. In some parishes houses are unoccupied.

Water Supply—The water supply is chiefly by pumps, artesian wells, overflowing springs and a few surface wells. Water in the district is usually very good. Where it is impure in any degree action is taken to secure wholesome supply within a reasonable distance.

Dairies, Cowsheds and Milk Supply—There are 10 dairies and cowsheds in the district which have received 18 inspections.

Slaughter-houses—There are 12 slaughter-houses on the register which have been inspected quarterly.

Bakehouses—There are 16 in the district which have received 28 inspections. Two contraventions of the Factory Act were found and were both remedied.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—There are said to be no systems of drainage required in the district, the houses being drained according to their position and the surroundings and requirements of each individual case. The sewage, house refuse and excrement are disposed of on the land. Generally cesspools are made, the overflow going into the nearest dyke. During the year the offensive dyke in the Station Road, North Thoresby, has been piped in. 100yds. of sewerage at Aby were relaid. The drainage of Welton-le-Wold has received considerable attention. The drainage of Saltfleet is unsatisfactory, but the matter is having attention, with a view to a new system being adopted. At Binbrook 180yds. of new sewer have been laid.

Disposal of Refuse and Excrement—There is no scavenging. The Sanitary Inspector estimates the following number of sanitary conveniences in the district:—Privies 1,730, pails 730, water closets 175.

Common Lodging-houses—There are none.

Offensive Trades—There are six offensive trades in the district, of which 12 inspections have been made. The manure works at Binbrook, Donington-on-Bain, Marshchapel and North Thoresby have worked satisfactorily.

### SIBSEY.

Housing Accommodation—Fourteen houses were inspected under the Housing Regulations during the year. Three houses were repaired without closure, one house was demolished, and two new houses were built during the year.

Water Supply—Twenty-four per cent. of the houses in the district are supplied with water from the Boston Water Company's main. Two new cisterns were provided during the year.

Dairies, Cowsheds and Milk Supply—There are 21 cowsheds on the register to which 42 inspections have been made. There are no dairies or milk shops. There are 99 milch cows in the district.

Slaughter-houses—There is one slaughter-house on the register which is inspected quarterly. It is kept in good order.

Bakehouses—The five bakehouses in the district have received five inspections. They were found to be kept in very good order.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No work of sewerage has apparently been undertaken during the year.

Disposal of Refuse and Excrement—There is no organised scavenging. The roadmen, it is believed, do what is considered necessary. There are six houses in the district possessing water closets. Otherwise privy vaults are in vogue.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

### SPILSBY.

Housing Accommodation—One hundred and seventy-seven houses were inspected under the Housing Regulations. Two hundred and eighteen defects were remedied. Closing orders were made in the case of five houses unfit for human habitation, two of which have since been made habitable. As a result of a Local Government Board enquiry the District Council is to formulate a scheme for the erection of at least six cottages in Wainfleet. The Council have acquired an acre of land at Eastville for the purpose of building cottages and are endeavouring to purchase an acre in Midville for the same purpose.

Water Supply—Spilsby with Hundleby, Sutton-on-Sea and Wainfleet All Saints possess a public supply. of Winthorpe is supplied with water from Skegness main as also are some houses in Burgh and Welton. A few houses in West Fen are supplied from the mains of the Boston Waterworks Company. The number of houses connected with these supplies has increased to 680 approxi-The cottages in St. Michael's Lane, Wainfleet St. Mary, have not yet been supplied with water, although the mains have been laid since June, 1914. During the year the Skegness Urban Council have laid 2,340 yards of water mains on the Roman Bank, and 1,416 yards in Church Street, Winthorpe. Most of the houses in these roads situated in Winthorpe Parish have made connections with the mains. Of 18 samples of drinking water analysed nine were classed as good, four suspicious and five bad.

Dairies Cowsheds and Milk Supply—Some of these premises have been inspected and found satisfactory. One new cowshed has been built at Hundleby in the place of one condemned.

Slaughter-houses—There is no public slaughter-house in the district. There are 29 private licensed slaughter-houses, most of which have been inspected. In three cases contraventions of bye-laws were discovered and remedied.

Bakehouses—Three of these premises have been closed. Some have been inspected. Four defects found were remedied. There are no underground bakehouses.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—Spilsby and Hundleby have combined for sewerage purposes. The new sewerage scheme for Sutton-on-Sea, which was commenced in January, 1912, has still not been taken over by the District Council, a certificate of satisfactory completion not yet having been received from the Engineers.

Disposal of Refuse and Excrement—The removal of night-soil and house refuse is carried out by contract in the parishes of Spilsby, Hogsthorpe, Wainfleet, Winthorpe and Sutton. In places where troops are stationed the scavenging is systematically carried out daily.

Common Lodging-houses—Partney possesses the only common lodging-house in the district. It is well conducted. Offensive Trades—There is only one in the district. Bye-laws are not in force.

### WELTON.

Housing Accommodation—During the year 85 dwelling-houses were inspected under the Housing Act. One which was considered to be unfit for human habitation had its defects remedied. Plans for eight new houses and alterations to four were passed during the year.

Water Supply—Out of 25 samples of water taken from Saxilby (17 during 1915) only four were returned as being fit for consumption. Negotiations are in progress for supplying the inhabitants with water from the main belonging to the Lincoln Corporation, which runs through the village. Seven other samples taken from different parts of the district were all returned as bad.

Dairies, Cowsheds and Milk Supply—These premises have received constant care and attention by the Sanitary Inspector who reports that the standard of the cows and their sheds has been well maintained.

Slaughter-houses and Bakehouses—These premises have been constantly visited by the Sanitary Inspector who reports that there is little cause for complaint. In five cases only have notices had to be served.

Pollution of Rivers—No reference.

Severage and Sewage Disposal—New works have been carried out at Bardney, Ingham, Saxilby, Sudbrooke and Welton. The sewers at Normanby, Scothern and Bardney have been satisfactorily cleansed and flushed.

Disposal of Refuse and Excrement—Scavenging is in operation in the villages of Nettleham and Saxilby. The work is being satisfactorily carried out. The Medical Officer of Health emphasises the necessity, more particularly as labour is so short, of housewives impressing upon their staff to destroy all possible breeding and lurking places of flies, and to burn all green and kitchen refuse.

Offensive Trades—These premises have been supervised and no complaints have been received.

